



City of Concord
10-Year Comprehensive Solid Waste Management Plan

Three Year Update
Covering July 1, 2012 to June 30, 2022

August 2012

Prepared by:
CITY OF CONCORD
SOLID WASTE SERVICES DEPARTMENT
ALFRED M. BROWN OPERATIONS CENTER
850 WARREN C. COLEMAN BOULEVARD
P. O. BOX 308 • CONCORD, NC 28026-0308
Phone 704.920.5360 • Fax 704.795.0404

This document is printed on Recycled Paper with 30-percent post consumer content.

This Page Left Blank Intentionally

Table of Contents

1.0	Local Information.....	1-1
1.1	Local City Contacts	1-1
1.2	Geographic Data	1-2
1.3	Location Map	1-3
2.0	The Planning Process and Public Participation	2-1
2.1	Public Participation	2-1
2.2	Public Review of Solid Waste Management Plan	2-1
3.0	Waste Characterization.....	3-1
3.1	Introduction	3-1
3.2	Total Waste Stream Managed	3-1
3.3	Current Waste Stream Characteristics	3-2
	A. Waste Stream Analysis By Sector	3-2
	B. Waste Stream Composition	3-3
	1. Residential Waste (MSW) Stream Composition	3-3
	2. Commercial, Industrial, Institutional (CII) Waste Stream Composition	3-4
3.4	Waste Stream Projections for Concord, NC.....	3-6
	A. Municipal Solid Waste	3-6
	B. Construction and Demolition (C&D) Waste.....	3-7
4.0	Waste Reduction Goal	4-1
4.1	Historical Waste Reduction Accomplishments	4-1
4.2	Future Waste Reduction Goals	4-1
4.3	Targeted Waste Reduction Goals	4-5
5.0	Waste Handling Characterization.....	5-1
5.1	Introduction	5-1
5.2	Municipal Solid Waste (MSW)	5-1
	A. Residential Solid Waste Collection	5-1
	1. Collection	5-1
	2. Disposal	5-3
	3. Recycling	5-3
	4. Composting	5-4
	5. Household Hazardous Waste (HHW) and Special Wastes.....	5-4
	B. Commercial, Industrial, Institutional (CII)	5-4
5.3	Construction & Demolition (C&D) Waste	5-6
	A. Residential Sector	5-6
	1. Collection	5-6
	2. Disposal	5-6
	3. Recycling	5-6
	B. Commercial, Industrial, Institutional (CII) Sector	5-6
	1. Collection	5-6

	2. Disposal	5-6
	3. Recycling	5-7
5.4	Land Clearing and Inert Debris	5-7
5.5	White Goods	5-7
	A. Residential	5-7
	1. Collection	5-7
	2. Disposal	5-7
	B. Commercial	5-7
	1. Collection	5-7
	2. Disposal	5-7
5.6	Scrap Tires	5-8
	A. Residential	5-8
	1. Collection	5-8
	2. Disposal	5-8
	B. Commercial	5-8
	1. Collection	5-8
	2. Disposal	5-8
5.7	Electronics	5-9
	A. Residential	5-9
	1. Collection	5-9
	2. Recycling	5-9
	B. Commercial	5-9
	1. Collection	5-9
	2. Recycling	5-9
6.0	Assessment and Actions	6-1
6.1	Introduction	6-1
6.2	Reduction at the Source	6-1
	A. Current Program Assessment	6-1
	1. One Cart Per Residence	6-1
	2. Solid Waste Resource Guide	6-1
	3. Greenscaping, The Easy Way to a Greener, Healthier Yard	6-1
	4. Grasscycling	6-1
	5. Backyard Composting	6-2
	6. Promotion of Non-toxic Products	6-2
	7. Junk Mail Reduction	6-2
	8. Swap 'N Shop	6-2
	9. Paint Exchange	6-2
	B. Intended Actions	6-2
	1. Improvements to web-site	6-2
	2. Examination of Educational and Enforcement Opportunities for Source Reduction	6-2
6.3	Collection	6-3
	A. Current Program Assessment	6-3
	B. Intended Actions	6-3
6.4	Recycling and Reuse	6-4

	A. Current Program Assessment	6-4
	1. Curbside Residential Recycling Program	6-4
	2. Office Paper Recycling Program.....	6-4
	3. Mixed Paper Recycling Program in Schools	6-4
	4. Bottle & Can Recycling Program in Schools	6-4
	5. Corrugated Cardboard Recycling Program	6-4
	6. Multi-Family and Downtown Business Pilot Program	6-6
	B. Intended Actions	6-6
	1. Multi-Family Housing Recycling Pilot Study.....	6-6
	2. Downtown Business Recycling Pilot Program.....	6-6
	3. Evaluation of Mixed Paper And Office Paper Collection Program	6-6
	4. Expanding Cardboard Recycling.....	6-7
	5. Evaluation of Bottles And Cans Recycling Program	6-7
6.5	Composting and Mulching	6-7
	A. Current Program Assessment	6-7
	1. Yard Waste Collection	6-7
	2. Composting Facilities	6-7
	B. Intended Actions	6-8
	1. Disposal Contracts.....	6-7
6.6	Incineration With and Without Energy Recovery	6-8
	A. Current Program Assessment	6-8
	B. Intended Actions	6-8
6.7	Transfer Outside the Geographic Area Covered by This Plan	6-8
	A. Current Program Assessment	6-8
	1. Sonoco Recycling – Charlotte, NC.....	6-8
	2. Sonoco Recycling – Salisbury, NC.....	6-8
	3. Wallace Farms – Huntersville, NC.....	6-8
	4. Highway 49 Construction and Demolition (C&D) Landfill – Harrisburg NC..	6-8
	5. Cabarrus County Landfill – Cabarrus County, NC	6-9
	6. Iredell Recycling (MRF) – Mooresville, NC.....	6-9
	7. Millennium Metals – Mt. Pleasant, NC	6-9
	8. Metrolina Recycling Facility – Charlotte, NC	6-9
	B. Intended Actions	6-9
6.8	Disposal	6-9
	A. Current Program Assessment	6-9
	1. Waste Disposal.....	6-9
	2. Franchise Agreement	6-9
	B. Intended Actions	6-9
6.9	Education in Community and Schools	6-9
	A. Current Program Assessment	6-9
	1. City Circular	6-10
	2. Solid Waste Resource Guide	6-10
	3. Public Information Officer	6-10
	4. The Environmental Educator Specialist	6-10
	5. Speakers Bureau	6-10
	6. Civic Education	6-11

	7. Concord 101	6-11
	8. Solid Waste Supervisors Make Personal Contact With Customers	6-11
	9. Informational Cart Hangers	6-11
	10. Utility Bill Inserts	6-11
	B. Intended Actions.....	6-11
6.10	Management of Special Waste	6-12
	A. Scrap Tires.....	6-12
	B. White Goods (WG).....	6-13
	C. Electronics (EL).....	6-13
	D. Abandoned Manufactured Homes	6-14
	E. Household Hazardous Waste (HHW)	6-14
	F. Fluorescent Lights	6-15
	G. Used Oil Filters.....	6-15
6.11	Litter and Illegal Dumping.....	6-15
	A. Current Program Assessment.....	6-15
	B. Intended Actions.....	6-16
6.12	Purchase of Recycled Products	6-16
	A. Current Program Assessment.....	6-16
	B. Intended Actions.....	6-16
	C. Sustainable Procurement Policy	6-19
7	Solid Waste Cost Analysis	7-1
7.1	Introduction	7-1
7.2	Description of Program Costs	7-1
	A. Collection Costs	7-1
	B. Disposal Costs	7-1
	C. Recycling Costs.....	7-1
	D. Yard Waste and Leaf Collection Costs	7-1
	E. Mulching and Composting Costs.....	7-1
7.3	Description of Funding.....	7-1
	A. General Fund	7-1
	B. Disposal Tax Reimbursement Fund	7-1
	C. Electronics Fund Disbursements.....	7-2
	D. Franchise Funds	7-2
7.4	Department Budget	7-2
8	Emergency & Disaster Debris Management and Animal Mortality.....	8-1
8.1	Debris Staging Areas	8-1
8.2	City of Concord Emergency Contacts.....	8-2
8.3	Local Area Utility and Emergency Contacts	8-3
8.4	Recycling Vendors and Contacts.....	8-4
8.5	Hazardous Waste Contractors	8-6

9	Resolutions	9-1
9.1	Copy of Public Notice	9-1
9.2	Resolution of Adoption	9-2
10	Ordinances	10-1
10.1	Introduction	10-1
10.2	City of Concord, Code of Ordinances, Chapter 30, Article IV Nuisances	10-1
	A. Summary	10-1
	B. Applicable Ordinance.....	10-1
10.3	City of Concord, Code of Ordinances, Chapter 46, Solid Waste	10-9
	A. Summary	10-9
	B. Applicable Ordinance.....	10-10
11	Planning Element Sheets	11-1
11.1	Introduction	11-1
11.2	Source Reduction	11-3
11.3	Collection	11-5
11.4	Recycling and Reuse.....	11-7
11.5	Composting and Mulching.....	11-13
11.6	Incineration With and Without Energy Recovery	11-15
11.7	Transfer Outside Planning Area	11-17
11.8	Disposal	11-19
11.9	Education with Community and Schools	11-21
11.10	Managing Special Wastes	11-25
11.11	Illegal Dumping and Litter Management	11-29
11.12	Purchase of Products with Recycled Material Content	11-31

Figures

1-1	Populations and 10-Year Growth Estimates	1-2
1-2	Location Map	1-3

Tables

3-1	Historic Waste Estimates by Sector	3-2
3-2	2010-2011 Solid Waste Distribution by Sector with Waste Generation, Disposal, and Recovery Factors.....	3-3
3-3	Estimated Residential Waste Composition-FY 2010-2011	3-4
3-4	Estimated Commercial Waste Composition-FY 2010-2011.....	3-5
3-5	Waste Projections for Municipal Solid Waste	3-6
3-6	Waste Projections for C&D Waste	3-7

4-1	Analysis of 1991-1992 Waste Generation Rate	4-2
4-2	Historical Waste Reduction Achievements.....	4-3
4-3	Three- and Ten-Year Waste and Population Projections	4-6
4-4	Target Waste Reduction, 2015-2016 and 2021-2022.....	4-6
4-5	Projected Waste Reduction Goals-July 2012 to June 2022	4-7
4-6	Projected Program Waste Recovery Goals-July 2012 to June 2022	4-8
4-7	Goals and Costs for Selected Waste Recovery Programs-July 2012 to June 2022	4-9
5-1	Permitted Local Disposal, Recycling, & Processing Facilities.....	5-2
5-2	Cabarrus County Disposal Report for all Categories by Facility.....	5-3
5-3	Local Scrap Metal Facilities	5-8
6-1	Curbside Collection Improvements using 95-Gallon Rollout Carts- 2011-2012	6-5
7-1	Full cost Analysis Solid Waste Program Costs.....	7-3

Section 1.0

Local Information

1.1 Local City Contacts

City Management

Mayor:	J. Scott Padgett	704.920.5215
City Manager:	W. Brian Hiatt	704.920.5215
Deputy City Manager:	Jim Greene	704.920.5206
Assistant City Manager:	Merl Hamilton	704.920.5330
Public Information Officer:	Peter Franzese	704.920.5210

Solid Waste Services

Solid Waste Director:	H. Allen Scott, Jr. PE	704.920.5370
Sr. Customer Service Specialist:	Valerie Proper	704.920.5361
Executive Assistant:	Judy Cox	704.920.5337
Utility Services Coordinator:	Michael Rush	704.920.5360
Environmental Educator Specialist:	Amanda Smith-Thompson	704.920.5379

Public Safety

Police Chief:	Guy Smith	704.920.5008
Fire Chief:	Randy Holloway	704.920.5522
Emergency Management Coordinator:	Jim Sells	704.920.5528
		Pager: 704.783.3745
Risk Management	Julie Waller	704.920.5111
	Becky Evans	704.920.5112

Public Contact & Spills/Illegal Dumping Reporting

Customer Care Center:	7:00 AM to 6:00 PM (Weekdays)	704.920.5555
Emergency Communications	After Business Hours, Weekends & Holidays	704.920.5581

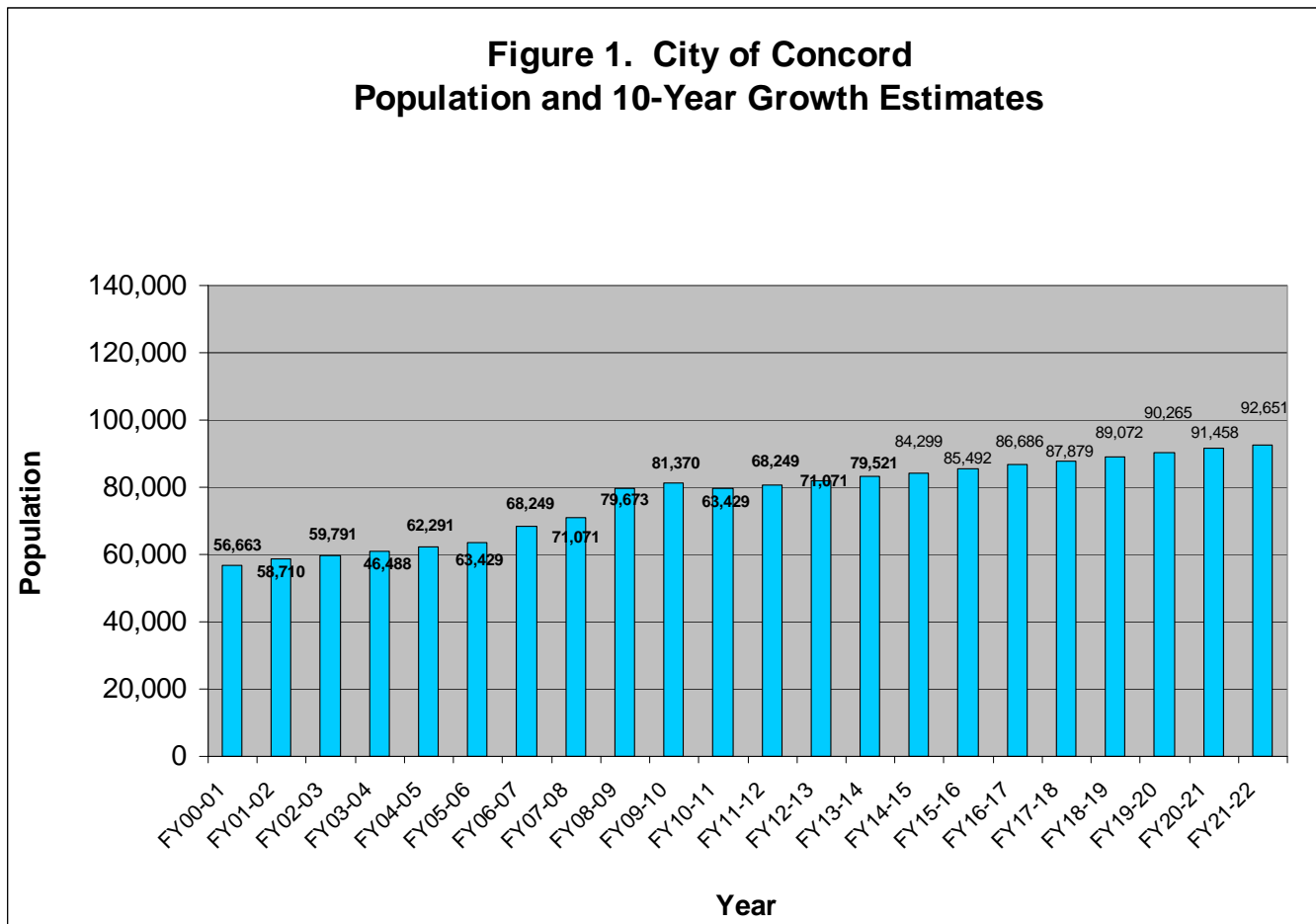
Illegal Dumping & Litter Enforcement

Police Dept Code Enforcement Manager:	David Barnhardt	704.920.5144
Litter Collection Program Manager & Buildings & Grounds Director:	David Ratchford	704.920.5380

1.2 Geographic Data

This solid waste management plan covers the Concord city limits. The City of Concord is contained solely in Cabarrus County, North Carolina just outside the city limits of Charlotte. The City of Concord GIS Department keeps an accurate record of the current city limit boundaries and areas that have been annexed.

The most recent population totals received from the North Carolina Office of State management & Budget (NCOSMB) are for the period ending June 30, 2011.

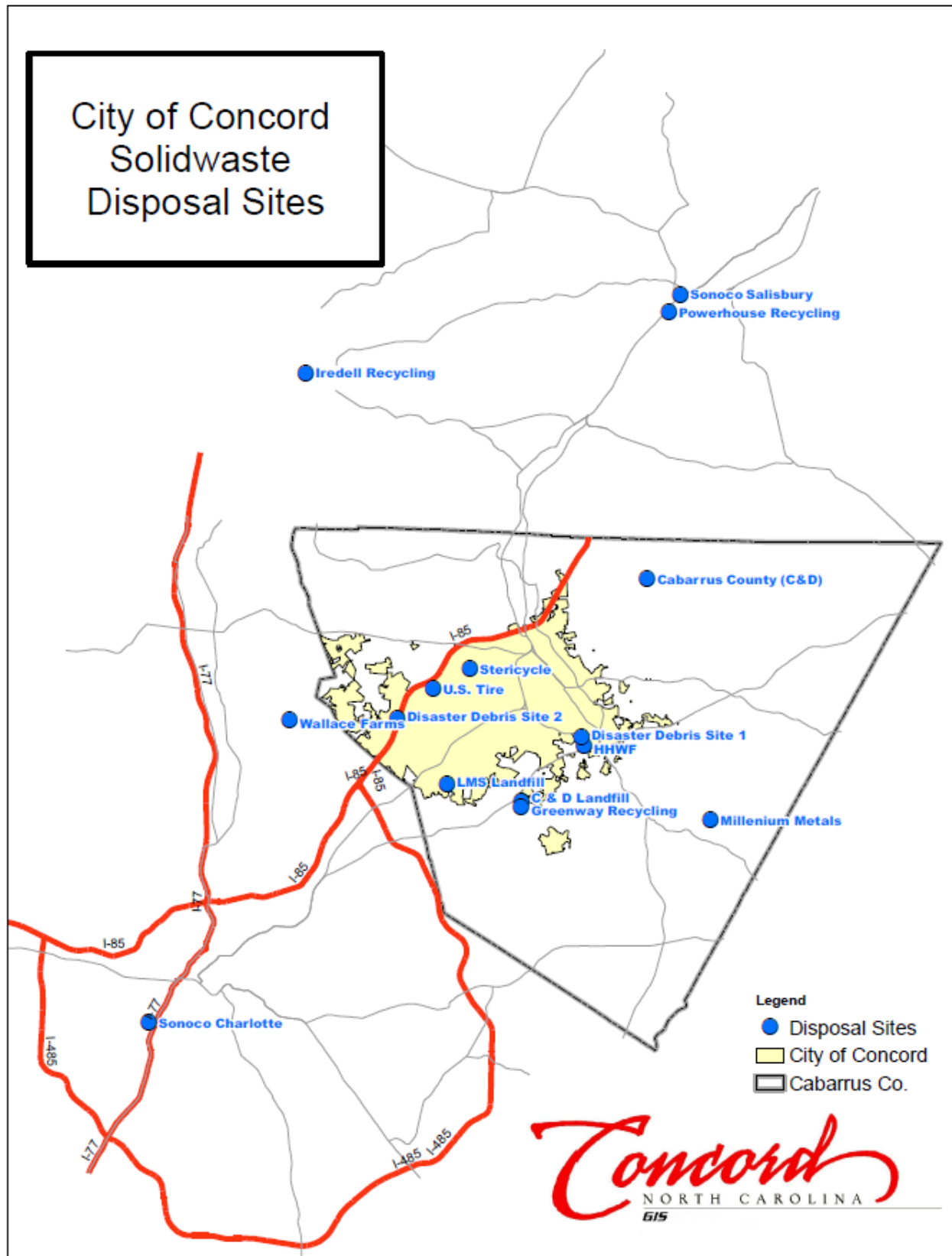


Population estimates (*) for the City over the next ten years are presented in Figure 1, using the average annual growth rate from 1996 (population 41,793) through 2011 (population 79,521). Concord has grown from a population of 31,747 and area of 31.61 sq mi in July 1992 to a population of 79,521 and an area of 60.092 sq mi in July 2011. This is a 190% percent total growth in population and a 190 percent area growth in the City of Concord.

There are 27,676 (FY 10-11) residential collection points over a 63.09 square mile area.

Republic Services collected 23,757 tons residentially in FY 10-11 (includes landfilling garbage & bulky waste). This total does not include recycled materials. The collection contract with Republic Services continued through June 30, 2011.

1.3 Location Map (Include a map of all solid waste facilities, disposal sites, and emergency debris staging sites used by city)



This Page Intentionally Left Blank

Section 2.0

The Planning Process and Public Participation

2.1 Public Participation

The City of Concord encourages public participation in all aspects of solid waste management. Information on customer satisfaction with the quality and adequacy of Solid Waste Management Services is gathered from a variety of sources. The following list highlights some methods that have proven effective for soliciting comments and opinions used to shape the future goals and priorities.

- An annual Customer Satisfaction Survey is conducted to determine the public's perception of the solid waste management program. The survey results are presented to City Council at their annual planning meeting and used to set goals for changes in the solid waste management program.
- Customer service requests received through our Customer Care Center are maintained in a database and used to establish performance goals and analyzed to measure the effectiveness of all the services provided to our customers. These data are useful for identifying and establishing a strategy to meet public education and outreach needs.
- Concord has a Recognized Neighborhood program, designed to increase communication with individual neighborhoods and increase their access to City services. A City staff member is assigned as Neighborhood Liaison to assist the neighborhood leaders in finding answers to their questions or obtaining the needed assistance from the appropriate City department. Solid Waste Services personnel attend these community meetings on a regular basis to answer questions, provide education regarding City ordinances or policies, or help resolve service delivery problems. Input from these meetings is used to identify needed changes to service delivery or changes to City ordinances.
- Solid Waste Services Supervisors investigate violations of Solid Waste Ordinance and reports of illegal dumping. These Supervisors make personal contacts with Customers or leave a Cart Hanger containing an explanation of the violation and necessary actions to achieve compliance. These personal contacts with Customers allow the Supervisors to receive feedback from the customers regarding their needs and satisfaction with our communication plans and service delivery. This information from our Customers are incorporated into our annual planning process for achieving continuous improvement.

2.2 Public Review of Solid Waste Management Plan

Making this plan available for public review prior to taking official action is a priority. A copy of this plan is available at City Hall and at the Solid Waste Services Department Director's office for public review. A public notice regarding the public hearing is published in the Independent Tribune (Appendix B). A copy of this document will also be placed on the City web-site for permanent review by the public and City coworkers, to encourage broader exposure and greater understanding of the mission and the importance of waste reduction and recycling to our community.

This Page Left Blank Intentionally

3.0 Waste Characterization

3.1 Introduction

In this section, the quantities, characteristics and projections of waste streams that will be managed by Concord during the 10-year planning period. Concord's solid waste management program is interdependent upon those activities occurring within Cabarrus County and our sister municipalities. Cooperation and coordination of resources and ambitions are necessary in an economic climate that necessitates elimination of duplication and waste.

In this report, Municipal Solid Waste (MSW) refers to wastes generated in both the residential and CII sectors. Construction and demolition (C&D) debris refers to waste generated from construction, remodeling, repair, or demolition of structures or infrastructure within either the residential or CII sectors.

The characteristics of each waste stream are defined using composition data available from US EPA and NCDENR. The primary sources for waste composition calculations include the following.

- Population Projections from the North Carolina State Demographics, Projected Annual County Population totals (<http://www.demog.state.nc.us>). The City of Concord population estimates were calculated by comparing official City population estimates, and applying the same annual increase indicated for county population projections.
- Waste stream compositions are derived from US EPA Municipal Solid Waste Generation, Recycling, and disposal in the United States: Facts and Figures for 2010 and Table 2-4 ESTIMATE OF COMMERCIAL WASTE COMPOSITION – FY 2010-11 from the 2012 Guilford County, North Carolina Solid Waste Management Plan Update.
- Total waste generation numbers are derived from the North Carolina Division of Solid Waste, Solid Waste Management Annual Reports, Annual Landfill Reports for Cabarrus County (<http://portal.ncdenr.org/web/wm/sw/swmar>).

3.2 Total Waste Stream Managed

Table 3-1 presents historical waste quantities managed by the City of Concord. This summary includes MSW and C&D tonnages landfilled plus waste diverted through recycling, reclamation and yard waste composting. Total waste generation is estimated using actual data compiled for wastes, recycling, and composting directly managed by the City. MSW included waste diverted through recycling, reclamation, and yard waste composting programs.

The waste stream estimating protocol is the same throughout this plan. No waste stream characterization studies have ever been conducted for waste generated in the City of Concord or Cabarrus County. The landfill reports for Cabarrus County are the primary source used to estimate the

total waste generated within Concord. The landfill reports establish the total wastes generated within Cabarrus County.

The residential and CII total waste disposal is estimated by assuming a per capita percentage of MSW and C&D from Cabarrus County was generated within the City of Concord. All of the waste received at facilities where Concord residential waste is not delivered is assigned to the CII sector. The quantitative difference between these data and the waste data maintained by the City of Concord is used to estimate both the MSW and the C&D waste streams for the CII sector. This process is believed to be more accurate than applying generalized estimating data provided by the US EPA for urban environments. Where data is not available and we are unable to estimate the missing data for specific waste streams, no value is reported or included in the analysis.

TABLE 3-1
HISTORIC WASTE ESTIMATES BY SECTOR
CONCORD, NORTH CAROLINA

Fiscal Year	Population	MSW tons Landfilled¹	C&D Tons Landfilled	Total Tons Diverted	Total Tons Managed
2000-2001	56,663	41,683	38,583	9,960	90,226
2001-2002	58,710	51,421	36,338	13,800	101,559
2002-2003	59,791	67,232	39,685	23,107	130,024
2003-2004	61,070	64,036	44,293	11,967	120,296
2004-2005	62,291	68,252	53,710	10,517	132,479
2005-2006	63,429	68,252	53,710	10,517	132,479
2006-2007	68,249	79,361	76,731	11,657	167,748
2007-2008	71,071	70,004	60,574	10,952	141,530
2008-2009	79,673	72,348	31,521	33,857	137,726
2009-2010	81,370	66,342	24,190	34,236	124,767
2010-2011	79,521	58,450	22,084	35,878	116,412
¹ MSW reported for both residential and CII Sectors. C&D is considered a part of the CII waste stream but is shown separately for estimating purposes.					

3.3 Current Waste Stream Characteristics

A. Waste Stream Analysis by Sector

The distribution of wastes generated in Concord for the Residential and Commercial, Industrial, and Institutional (CII) sectors are presented in Table 3-2. The waste generation and disposal factors for each sector are also presented. These data represent the FY 2010-2011 operating period.

<p style="text-align: center;">TABLE 3-2 2010-2011 SOLID WASTE DISTRIBUTION BY SECTOR WITH WASTE GENERATION, DISPOSAL & RECOVERY FACTORS CONCORD, NORTH CAROLINA</p>					
Measurement	MSW		Total MSW ¹	C&D Waste ¹	Total Waste Stream
	Residential ¹ Waste	CII ¹ Waste			
Percentage	31.9%	31.2%	63.1%	36.9%	100%
Generation Rate Tons per capita	0.47	0.46	0.92	0.54	1.46
Disposal Rate Tons per capita	0.30	0.44	0.74	0.28	1.01
Recovery Rate Tons per capita	0.17	0.02	0.19	0.26	0.45
¹ Percentages derived using both measured & estimated quantities for each category from FY 2010-2011. Primary sources include measured tons for residential MSW disposed and recyclables, and per capita estimates using NCDENR Landfill Reports for Cabarrus County.					

B. Waste Stream Composition

No waste characterization studies have been conducted on the waste generation in Concord or Cabarrus County. No comprehensive data is available on waste generation in the Commercial, Industrial, and Institutional sector. In the past we have relied on waste generation estimates using factors available from USEPA and NCDENR to estimate waste from the CII sector.

Similarly, Concord assumes a per capita credit for the quantities of WGs and Scrap Tires reported from Cabarrus County reported elsewhere in this report. Although a significant portion of HHW received at the Cabarrus County HHW comes from Concord residents, we have not included those numbers in our waste stream analysis because HHW management is a Cabarrus County program.

1. Residential Waste (MSW) Stream Composition

In this plan, residential waste refers to waste generated by households (individual and multi-family dwellings of less than 5 or fewer units). Table 3-3 presents the estimated residential waste composition. MSW includes residential waste, recyclables, and yard waste. Both recovered recyclables and yard waste are diverted from the landfill through recovery and composting respectively.

Residential waste collected in Concord totaled 23,757 tons in FY 2010-2011 (includes landfilling garbage & bulky waste). All of this waste was delivered to the BFI-CMS Landfill for disposal. When combined with recycled materials or yard waste, the total residential waste stream totaled 37,082 tons.

TABLE 3-3 ESTIMATED RESIDENTIAL WASTE COMPOSITION – FY 2010-2011 CONCORD, NORTH CAROLINA		
Material	Estimate (Percent) ¹	Estimated Tons Generated
Paper and Paperboard	28.5%	10,568
Yard Waste	13.4%	4,969
Food Scraps/Organics	13.9%	5,154
Rubber, Leather, Textiles	8.4%	3,115
Plastics	12.4%	4,598
Glass	4.5%	1,669
Metals	9.0%	3,337
Wood	6.4%	2,373
Other Misc. Waste ²	3.5%	1,298
TOTAL	100.0%	37,082
¹ Percentages derived from US EPA Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2010 ² Other includes rubble/C&D debris		

2. Commercial, Industrial, Institutional (CII) Waste Stream Composition

The term non-residential refers to waste generated from CII activities. The CII sector does include a MSW component and Construction and Demolition (C&D) waste. The C&D estimates are associated with the CII Sector because C&D is predominantly generated from construction activities and the waste composition profiles used in developing this plan include C&D with the CII waste sector. Because C&D is disposed at a C&D landfill with material recovery operations, C&D recovery is evaluated as a source of diversion in calculating Concord's total waste generation and disposal rates.

The City of Concord lost two significant industrial manufacturing waste generators due to changing economic conditions. These losses include the closure of three (3) remaining textile mills associated with the former Cannon Mills and the relocation of manufacturing at the Philip

Morris Plant to Richmond VA. For this reason, we have assumed Concord's CII sector composition is now commercial in character. Concord selected the Guilford County Commercial Waste Composition profile referenced previously to predict the CII Sector composition. The estimated CII waste composition is presented in Table 3-4.

<p align="center">TABLE 3-4 ESTIMATED COMMERCIAL WASTE COMPOSITION – FY 2010-2011 CONCORD, NORTH CAROLINA</p>		
Material	Estimate (Percent) ¹	Estimated Tons Generated
Paper	26%	9,455
Cardboard	26%	9,455
Organics / Yard Waste ²	16%	5,818
Other	15%	5,455
Plastics	8%	2,909
Metals	6%	2,182
Glass	3%	1,091
TOTAL	100%	36,365
<p>¹ Percentages for Commercial Waste Composition derived from Table 2-4 in Guilford County 2012 Solid Waste Management Plan Update (Draft), p. 2-3.</p> <p>² Other includes textiles, wood, and rubble/C&D debris.</p>		

We have relied on NCDENR County disposal reports and composition factors reported by Guilford County reported above. The total tons of CII waste are calculated using total landfilled material reported for Cabarrus County and assuming a per capita percentage originated from within the Concord jurisdictional area covered by this report. The known total residential waste landfilled quantities are subtracted from Concord's contribution to the County total to arrive at the CII sector tonnage. All C&D tonnages are assumed to originate from the CII sector.

- a) Solid Waste from the CII sector is collected predominantly by commercial carriers and transported to available MSW landfills. The County generation reports were used to estimate the MSW generated by the CII sector.

- b) C&D Wastes generated from commercial operations are transported by commercial carriers to the available C&D landfill for disposal or recovery. A per capita estimate is used for this analysis. The Highway 49 C&D Landfill located in Harrisburg is equipped with material sorting and processing capabilities and diverts 65 percent of all materials received for alternative uses or recycling.
- c) Recyclables are generated and recovered within the CII sector but no data is available. The recyclables reported for the CII sector represent the materials recovered through City provided commercial recycling services for cardboard and paper. (Use estimates)
- d) LCID generated from Cabarrus County is reported in the County waste generation reports. A per capita estimate of LCID is used in this assessment of the CII waste stream.

3.4 Waste Stream Projections for Concord, NC

A. Municipal Solid Waste

Municipal solid waste projections reflect the per capita generation rate documented for FY 2010-2011. The generation rates are assumed to remain constant during the projected 10-year period covered by this 2012 update. Likewise, the sector percentage estimates presented in Table 3-2 are assumed to remain constant.

<p style="text-align: center;">TABLE 3-5 WASTE PROJECTIONS FOR MUNICIPAL SOLID WASTE CONCORD, NORTH CAROLINA</p>					
Fiscal Year	Population	Residential MSW	Commercial MSW	Total MSW	Total Tons Managed
2011-2012	80,719	37,641	36,913	74,553	118,165
2012-2013	81,912	38,197	37,458	75,655	119,912
2013-2014	83,105	38,753	38,004	76,757	121,658
2014-2015	84,299	39,310	38,550	77,860	123,406
2015-2016	85,492	39,866	39,095	78,962	125,153
2016-2017	86,686	40,423	39,641	80,065	126,901
2017-2018	87,879	40,979	40,187	81,166	128,647
2018-2019	89,072	41,536	40,732	82,268	130,394
2019-2020	90,265	42,092	41,278	83,370	132,140
2020-2021	91,458	42,648	41,824	84,472	133,886
2021-2022	92,651	43,205	42,369	85,574	135,633
<p>The growth rate for MSW for the residential and CII sectors and C&D are assumed to remain constant for the duration of this planning period. The waste generation rates from Table 3-2 are used to estimate future waste projections.</p>					

B. Construction and Demolition (C&D) Waste

The waste generation rates used in Table 3-6 are based on the FY 2010-2011 planning year. We assume these rates will remain constant over the July 1, 2012 to June 30, 2022 planning period to develop the Concord waste projections.

The C&D quantities are derived from the Cabarrus County Landfill Report for FY 2010-2011. While we assume the C&D generation factor will remain constant, but if the economy does improve and residential and commercial construction resume at the levels experienced before the economic downturn, the C&D generation will likely grow in proportion to the growth in construction.

TABLE 3-6 WASTE PROJECTIONS FOR C&D WASTE CONCORD, NORTH CAROLINA				
Fiscal Year	Population	Total MSW	Total C&D	Total Waste Stream
2011-2012	80,719	74,553	43,612	118,166
2012-2013	81,912	75,655	44,257	119,912
2013-2014	83,105	76,757	44,901	121,658
2014-2015	84,299	77,860	45,546	123,406
2015-2016	85,492	78,962	46,191	125,153
2016-2017	86,686	80,065	46,836	126,901
2017-2018	87,879	81,166	47,481	128,647
2018-2019	89,072	82,268	48,125	130,394
2019-2020	90,265	83,370	48,770	132,140
2020-2021	91,458	84,472	49,414	133,887
2021-2022	92,651	85,574	50,059	135,633

This Page Left Blank Intentionally

Section 4.0

Waste Reduction Goal

4.1 Historical Waste Reduction Accomplishments

The state designated FY 1991-1992 as the baseline year for comparing waste reduction efforts for achieving a 40 percent per capita. The State assigned a per capita generation rate of 1.06 to Concord, which happens to be identical to the value assigned to Cabarrus County. A review of the Concord Solid Waste Report for FY 1991-1992 presented in Table 4-1 indicates a waste disposal rate of 2.02 or 1.11 Tons per capita are more appropriate for Concord.

In 1991-1992 the City's characteristics were substantially different from Cabarrus County due to a rapid surge in construction of new homes resulting from new businesses moving into the eastern Mecklenburg County. Table 4-1 presents two alternate scenarios for calculating the per capita waste generation and disposal rates that include and omit C&D from the calculation. All scenarios yield higher values than the 1.06 assigned by the State for Concord.

Table 4-2 presents the historical trends in waste generation, disposal, and compared to the City's recalculated disposal rate described above and the 1.06 Tons per capita assigned by the State. The 40 percent reduction target for each is included as a basis for comparison. The City has selected 1.11 from Scenario 2 as the minimum disposal rate based on the 1991-1992 report, although a much higher target can be justified. The 40 percent reduction target for this value is 0.667, compared to 0.636 using the State's assigned 1.06 disposal rate. The 1.11 tons per capita is included for reference.

NCDENR established a waste reduction goal 40% below the per capita disposal rate for 1991-1992 for all local governments. The waste reduction column calculates the disposal rate relative to the 1991-1992 value. A negative number indicates disposal rates are higher than the target. The values should be progressing toward the positive value to indicate disposal rates are declining. A positive value of 40% will indicate the goal has been achieved.

4.2 Future Waste Reduction Goals

The City of Concord established a goal to increase the recovered material by 1 percent per year in the 2009 Solid Waste Management Plan. The City also assumed the waste generation rate would remain relatively constant in the years to follow, enabling the City to reduce the waste disposal rate in the coming years.

The waste disposal and recovery analysis presented in Table 3-2 indicates a per capita waste generation rate for FY 2010-2011 was 1.46 tons per capita, with a corresponding disposal and recovery rates of 1.01 tons and 0.45 tons respectively. The generation rate decreased by 26.6% from the 1.99 tons per capita in 2007-2008 to 1.46 tons per capita in 2010-2011. The waste disposal rate decrease by 45.1% from 1.84 to 1.01, indicating improved recovery was achieved. The waste recovery rate

TABLE 4-1
ANALYSIS OF 1991-1992 WASTE GENERATION RATE
CONCORD, NORTH CAROLINA

Criteria	MSW		Total MSW	C&D Waste	Total Waste Generated Tons	Total Waste Disposed Tons	Gen Rate, Ton/capita	Disp Rate, Ton/capita
	Residential Waste	CII Waste						
1991-1992 Percentage	48.4%	49.4%	97.8%	2.2%	100%	90.5%		
1991-1992 Values	19,180	18,580	38,760	860	39,620	35,860	1.25	1.13
Percentage¹	31.9%	31.2%	63.1%	36.9%	100%			
Scenario 1 Percentage	28.3%	27.4	57.2%	42.8%	100%	94.4%		
Scenario 1	19,180	18,580	38,760	28,960	67,720	63,960	2.14	2.02
Scenario 2 Percentage	48.4%	49.4%	97.8%	2.2%	100%	90.5%		
Scenario 2	19,180	18,580	38,760	0	38,760	35,000	1.22	1.11
State Value								1.06

Scenario 1: Use reported 1991-1992 values for MSW, diverted Recyclables & Yard Waste. Believing the reported value represents only Residential C&D collected by City collections, C&D tonnages are recalculated after substituting the 2000-2001 C&D waste percentage from Table 3-2 to calculate the per capita generation and disposal rates. The 1991-1992 population was 31,662.

Scenario 2: Use reported 1991-1992 values for MSW, diverted Recyclables & Yard Waste, but excludes C&D tonnages to calculate per capita generation and disposal rates.

¹The percentages from FY 2010-2011 substituted to estimate the C&D waste generated in FY 1991-1992.

TABLE 4-2
HISTORICAL WASTE REDUCTION ACHIEVEMENTS
CONCORD, NORTH CAROLINA

Fiscal Year	Population	MSW Tons/Yr.	C&D Tons/Yr.	Total Waste Tons/Yr.	Waste Disposed Tons/Yr.	Waste Generation Rate, Tons per capita/Yr.	Waste Disposal Rate, Tons per capita/Yr.	Waste Reduction ²	
								City ¹ 1.11	State 1.06
1991-1992									
SWM Plan:	31,662	38,760	0	38,760	35,000	1.22	1.11	1.11	1.06
State:							1.06		
2000-2001	56,663	51,643	38,583	90,226	80,266	1.59	1.42	-27.62	-33.64
2001-2002	58,710	65,221	36,338	101,559	87,759	1.73	1.49	-34.67	-41.02
2002-2003	59,791	91,839	38,185	130,024	106,917	2.17	1.79	-61.10	-68.70
2003-2004	61,070	76,003	44,293	120,296	108,329	1.97	1.77	-59.81	-67.34
2004-2005	62,291	78,769	53,710	132,479	121,962	2.13	1.96	-76.39	-84.71
2005-2006	63,429	82,197	59,300	141,497	130,808	2.23	2.06	-85.79	-94.55
2006-2007	68,249	91,018	76,731	167,748	156,091	2.46	2.29	-106.04	-115.76
2007-2008	71,071	80,956	60,574	141,530	130,578	1.99	1.84	-65.52	-73.33
2008-2009	79,673	84,181	53,545	137,726	103,869	1.73	1.30	-17.45	-22.99
2009-2010	81,370	79,526	45,242	124,767	90,532	1.53	1.11	-0.23	-4.96
2010-2011	79,521	73,447	42,965	116,412	80,534	1.46	1.01	8.76	4.46

¹Using the 1991-1992 Concord Solid Waste Management Report data, the City calculated a conservative waste disposal values. A higher value could be justified. This number is higher than the value assigned by the State and is included here for reference.

²NCDENR has established a waste reduction goal 40% below the per capita disposal rate for 1991-1992. These columns calculate the disposal rate relative to the 1991-1992 value. A negative number indicates disposal rates higher than the target. A positive value of 40% will indicate the goal has been achieved.

increased from 0.15 to 0.45 tons per capita over this period with diversion tonnage increasing from 10,950 to 35,880 tons per year. This change reflects a 227 percent increase in diversion.

The difficulty in achieving reductions based on the State's assigned 1991-1992 baseline is that all subsequent generation and disposal rates include both MSW from the CII sector and C&D over which the municipality has little influence or control. Table 3-2 shows the CII sector MSW and C&D contributions comprises 68.1 percent of the total waste stream. Additionally, the CII sector waste contribution is highly cyclical in nature, influenced by changes in economic conditions and activity in the construction industry.

We anticipate increases in both the CII MSW and C&D sectors to occur as the economic conditions improve, and this growth will place great pressure on local attempts to reduce waste generation. The City's ability to increase residential recycling and reuse will be overshadowed by this growth, making it difficult to progressively maintain the reduced waste generation and disposal rates observed in this analysis.

However, the Highway 49 C&D Landfills material recovery operations have significantly reduced the impact of C&D on the total waste stream because they can recover or recycle 65 percent of all C&D received. The Highway 49 facility receives approximately 75 percent of the C&D in Cabarrus County, so they are making a significant impact upon reducing disposal in our community.

Changes between 2007-2008 and 2010-2011 have significantly impacted our generation and disposal rates compared to previous years.

The total waste generation rate decreased from the 1.99 Tons per capita to 1.46 Tons per capita, a 26.6% reduction.

1. The total waste generation decreased from 141,530 Tons per year to 116,410 Tons per year. This 25,120 Ton per year (17.7 percent) decrease is attributed to the loss of important industries and poor economic conditions.
2. C&D waste generation decreased from 60,570 to 42,970 Tons per year for a net reduction of 17,600 Ton per year. This 29.1 percent reduction is the result of the decline in new construction and accounts for caused by the economy.
3. Total MSW generation fell from 80,960 to 73,450 Tons/yr., a 7,510 Tons/yr. (9.3 percent) decrease.
4. The commercial sector MSW generation rate declined by 11,100 Tons/yr. while the residential sector MSW generation increased by 3,590 Tons/yr., accounting for the 7,510 Ton/yr. net decrease in MSW. The increase in residential MSW generation is difficult to explain.

The total waste disposal rate fell from 1.84 to 1.01 tons per capita over this period for 45.1 percent reduction. The following factors influenced this reduction.

1. The total waste disposal rate fell by 43,060 Tons per year, from 130,580 to 80,530 Tons per year for a 38.3 percent reduction.
2. C&D landfilling was reduced by 38,490 Tons per year, a 63.5 percent reduction.
 - a. 17,610 Tons/yr. is from a drop in C&D generation attributed to a decline in the economy that has eliminated most new construction.
 - b. 20,880 Tons/yr. is attributed to recovery operations at the Hwy 49 C&D landfill. This diversion will continue to influence the disposal rate independent of the economy.
3. Total MSW disposal was reduced by 11,550 Tons per year, a 16.5 percent reduction. This reduction in disposal tonnage can be attributed to the combination of a 7,510 Ton/yr. decline in total MSW generated plus a 3,720 Tons/yr. increase in recycling recovery.
4. Recovery of yard waste, curbside recycling, and commercial recycling provided by the City totaled 15,000 Tons/yr. in 2010-2011, a 4,050 Ton/yr. increase from 2007-2008. It must be noted that municipal recycling recovered accounts for only 12.9 percent of the total waste stream.

4.3 Targeted Waste Reduction Goals

The waste reduction goal established in FY 2008-2009 was to reduce waste disposed by 1 percent per year based on a revised waste generation and waste disposal rates of 1.99 and 1.84 Tons per capita respectively. The FY 2010-2011 waste generation and waste disposal rates are 1.46 and 1.01 Tons per capita respectively. The 2007-2008 rates have been recalculated because our method of estimating the total waste component has been modified. Using the total waste generation from Cabarrus County using a per capita percentage and subtracting the waste managed by the City to estimate the CII contribution is believed to be more reliable than the factors for CII used previously.

Recalculating the total tonnages using the new methodology has yielded the values shown in Table 4-1. The revised waste generation and disposal rates are included. The waste generation declined by 25.6 percent, from 1.99 to 1.46 Tons per capita and the disposal rate was reduced by 45.1 percent from 1.84 to 1.01 Tons per capita.

The Three- and Ten Year Waste and Population Projections following the State's protocol are presented in Table 4-3, using the State's 1.06 Ton per capita waste disposal rate. The targeted waste reduction for 2015-2016 and 2021-2022 are presented in Table 4-4. The projected program generation, disposal, and recovery rates for each year during this planning period are presented in Table 4-5. The target program recovery rates necessary to achieve the waste reduction goals are presented in Table 4-6. Target goals and costs for selected programs critical to achieving the the waste reduction goals are presented in Table 4-7.

Assuming the per capita waste generation rates remain relatively steady throughout the planning period and economic conditions allow the increased expenditures necessary to achieve the target increased recovery figures presented in Table 4-6, the City of Concord will commit to make a good faith effort to achieve the following disposal rate targets:

- Reduce the 2010-2011 disposal rate from 1.01 tons per capita to 0.98 tons per capita by 2012-2013;
- Reduce the 2012-2013 disposal rate from 0.98 tons per capita to 0.97 tons per capita by 2015-2016; and
- Reduce the 2015-2016 disposal rate from 0.97 tons per capita in to 0.96 tons per capita by 2021-2022.
- These waste reduction targets are equivalent to the reduction targets of 8.15% and 9.41% presented in Table 4-4 for the years of 2015-2016 and 2021-2022 respectively.

TABLE 4-3 THREE- AND TEN-YEAR WASTE AND POPULATION PROJECTIONS CONCORD, NORTH CAROLINA			
Year	Population	Disposed Waste ¹	Per Capita Disposal Rate
1991-1992	31,662	38,762	1.06
Year	Projected Population	Projected Waste ²	
2015-2016	86,686	91,887	
2021-2022	93,845	99,476	
¹ The Disposed Waste is calculated using the population and disposal rate assigned by the State. The actual reported disposed waste was 38,762 Tons per capita without C&D and 39,622 with C&D. See analysis of disposal rate in Table 4-1. ² The waste disposal tonnage is calculated using the population and 1.06 Tons per capita disposal rate.			

TABLE 4-4 TARGET WASTE REDUCTION, 2015-2016 AND 2021-2022 CONCORD, NORTH CAROLINA			
	Calculations	2015-2016	2021-2022
1.	Baseline year per capita disposal rate (1991-1992 unless alternate approved by Section)	1.06	1.06
2.	Percent waste reduction goal	8.15%	9.41%
3.	Targeted per capita disposal rate (Subtract line 2 from 1.0 and multiply result by line 1)	0.974	0.960
4.	Estimated population for 2015-2016 and 2021-2022	86,686	93,845
5.	Projected tonnage for disposal at baseline disposal rate.	91,887	99,476
6.	Targeted annual tonnage for disposal (Multiply line 3 by line 4)	84,398	90,117
7.	Targeted annual tonnage to reduce (Subtract line 6 from line 5)	7,488	9,359

TABLE 4-5
PROJECTED WASTE REDUCTION GOALS – JULY 2012 TO JUNE 2022
CONCORD, NORTH CAROLINA

Fiscal Year	Population	MSW, Tons/Yr.	C&D, Tons/Yr.	Total Waste, Tons/Yr.	Waste Disposed, Tons/Yr.	Target Waste Recovery, Tons/Yr. ²	Predicted Waste Recovery, Tons/Yr.	Waste Generation Rate, Tons per Capita	Waste Disposal Rate, Tons/Yr. ¹	Reductions Achieved	
										City Disposal Rate, Tons per capita	State Disposal Rate, Tons per capita
1991-1992 Concord SWM Report	31,662	38,762	0	38,762	35,000	3,762		1.22	1.11	1.11	1.06
2010-2011	79,521	73,447	42,965	116,412	80,534	35,878	35,603	1.46	1.01	9.01	4.72
2011-2012	80,719	74,553	43,612	118,165	80,047	36,639	38,119	1.46	0.992	10.66	6.45
2012-2013	81,912	75,655	44,257	119,912	80,933	37,594	38,979	1.46	0.988	10.99	6.79
2013-2014	83,105	76,757	44,901	121,658	81,909	38,560	39,750	1.46	0.986	11.21	7.02
2014-2015	84,299	77,860	45,546	123,406	82,832	39,535	40,574	1.46	0.983	11.48	7.30
2015-2016	85,492	78,962	46,191	125,153	83,748	40,520	41,405	1.46	0.980	11.75	7.59
2016-2017	86,686	80,065	46,836	126,901	84,657	41,515	42,243	1.46	0.977	12.02	7.87
2017-2018	87,879	81,166	47,481	128,647	85,558	42,519	43,089	1.46	0.974	12.29	8.15
2018-2019	89,072	82,268	48,125	130,394	86,452	43,533	43,941	1.46	0.971	12.56	8.44
2019-2020	90,265	83,370	48,770	132,140	87,339	44,556	44,801	1.46	0.968	12.83	8.72
2020-2021	91,458	84,472	49,414	133,886	88,218	45,588	45,669	1.46	0.965	13.10	9.00
2021-2022	92,651	85,574	50,059	135,633	89,089	46,630	46,544	1.46	0.962	13.37	9.29

¹NCDENR has established a waste reduction goal 40% below the per capita disposal rate for 1991-1992. These columns calculate the disposal rate relative to the 1991-1992 value. A negative number indicates disposal rates higher than the target. A positive value of 40% will indicate the goal has been achieved.

²Target waste reduction for planning period 2012-2022 calculated for reducing the 1.01 disposal rate for 2010-2011 by 0.5 percent each year, toward a target of 0.636 Tons per capita, which is 40 percent below Concord's 1.06 tons per capita rate assigned by the State.

TABLE 4-6
PROJECTED PROGRAM WASTE RECOVERY GOALS – JULY 2012 TO JUNE 2022
CONCORD, NORTH CAROLINA

Program Target	2010-2011	2012-2013	2015-2016	2018-2019	2021-2022
Recovery, Tons/Yr.	35,603	38,979	41,405	43,941	46,544
C&D, Tons/Yr.	20,623	21,243	22,172	23,100	24,028
Yard Waste, Tons/Yr.	9,700	10,092	10,852	11,649	12,484
Curbside, Tons/Yr.	3,579	5,631	6,197	6,789	7,409
Cardboard, Tons/Yr.	1,403	1,532	1,640	1,801	1,963
Office Paper Recycling, Tons/Yr.	68	0	0	0	0
Mixed Paper Recycling, Tons/Yr.	230	432	490	539	588
Scrap Metal, Tons/Yr.	46	49	56	63	72
Electronics, Tons/Yr.	0	283	295	308	320

Target Recovery Increases:

1. **CARDBOARD:** Promote participation with the goal to add 1 dumpster per month over the next 10 years can achieve recovery of 1,960 Tons/yr. by 2021-2022 an achievable goal.
2. **PAPER:** Many businesses have requested mixed paper and declined to participate in office paper recycling. Increased tons collected and increased participation can increase the recovery from 298 Tons/yr. in 2010-2011 to 588 Tons by 2021-2022.
3. **CURBSIDE RECYCLING:** Conversion to cart collection of recyclables has already boosted annual recovery rates to 398 lbs. per household served. Aggressive education and promotion makes 500 lbs. per household served an achievable goal.
4. **ELECTRONIC WASTE:** The first full year for e-waste collection was 2011-2012, and yielded 279 tons of TVs, computers and computer components, and other miscellaneous electronics. The tonnages for future years are estimated by assuming the per capita rate remains constant during this planning period.

TABLE 4-7
GOALS AND COSTS FOR SELECTED WASTE RECOVERY PROGRAMS – JULY 2012 TO JUNE 2022
CONCORD, NORTH CAROLINA

PROGRAM	2010-2011	2015-2016	2021-2022	
CARDBOARD RECYCLING				
Dumpsters in Service	317	365	437	Add 12 dumpsters per year over the next 10 years.
Tons/yr.	1,403	1,640	1,960	
Estimated Annual Cost	\$290,000	\$336,000	\$402,000	Increased Recovery: 560 +/- Tons/Yr.;
Cost per Ton	\$207	\$205	\$205	Increased Cost: \$112,000 per Yr.
PAPER RECYCLING				
Customers	250	300	360	Convert paper collection from office paper to mixed paper and promote the program.
Tons/Yr.	298	490	588	
Estimated Annual Cost	\$33,400	\$40,100	\$48,100	Increased Recovery: 290 +/- Tons/Yr.;
Cost per Ton	\$112	\$82	\$82	Increased Cost: \$14,700 per Yr.
CURBSIDE RECYCLING				
Pounds per Household served per year	260 (398)	445	530	Using education and outreach, increase participation & recovery to above average levels
Tons/Yr.	3,580	6,197	7,409	
Estimated Annual Cost:	\$580,700	\$649,700	\$166,700	Increased Recovery: 3,830 +/- Tons/Yr.;
Cost per Ton	\$162	\$105	\$101	Increased Cost: \$166,700 per Yr.
Total Recovered, Tons/Yr.	5,280	8,326	9,959	Increased Recovery: 4,680 tons/Yr.
Annual Cost	\$904,100	\$1,025,800	\$1,197,500	Increased Cost: \$293,400

Target Recovery Increases:

1. CARDBOARD: Promote participation with the goal to add 1 dumpster per month over the next 10 years can achieve recovery of 1,960 Tons/yr. by 2021-2022 an achievable goal.
2. PAPER: Many businesses have requested mixed paper and declined to participate in office paper recycling. Increased tons collected and increased participation can increase the recovery from 298 Tons/yr. in 2010-2011 to 816 Tons by 2021-2022.
3. CURBSIDE RECYCLING: Rollout cart recycling collection increased the annual recovery rates from 230 lbs. per household served in 2010-2011 to 398 lbs. per household served in 2011-2012. Aggressive education and promotion makes 500 lbs. per household served an achievable goal.

This Page Left Blank Intentionally

Section 5.0

Waste Handling Characterization

5.1 Introduction

This section outlines the overall waste flows generated in the City, for generator type to disposal or processing. For greater details on each waste stream, see Section 6. Table 5-1 presents the permitted waste disposal or processing facilities receiving waste from locations within the City of Concord. This comprehensive list includes all known facilities found listed on the NCDENR web-site.

5.2 Municipal Solid Waste (MSW)

A. Residential Solid Waste Collection

1 Collection

Through June 30, 2011 the City contacted with Allied Waste Services/Republic Services to collect MSW once per week in rollout carts, residential recycling in 18-gallon bins, bulky items and construction debris. Republic Services used semi-automated rear load packer trucks and collected MSW, bulky, and construction debris in the same truck.

Beginning July 1, 2011, the City of Concord began contracting with Waste Pro USA to collect residential rollout container waste, rollout recycling containers and bulky waste materials. Additionally, Waste Pro provides curb side collection of White Goods, scrap metal, scrap tires, and electronic waste. MSW and recyclables are collected using automated side loading garbage trucks. Bulky waste and construction debris are collected together using rear load packer trucks or grapple trucks. White goods, scrap metal, scrap tires and electronics are collected separately for recycling.

Condominium service is considered residential service although these developments are served using bulk container service. The City contracts with Allied Waste to service these customers. All new condominium complexes constructed in the City of Concord are encouraged to incorporate dumpsters for waste disposal. Complexes designed and built in a “townhouse” style with detached units may be serviced using rollout carts if deemed practical. The City of Concord pays for residential rollout or dumpster waste removal at condominium complexes.

Housing complexes of five (5) total units or less (e.g. duplexes) are serviced according to residential collection standards and may use rollout carts. .

TABLE 5-1
PERMITTED LOCAL DISPOSAL, RECYCLING, & PROCESSING FACILITIES

Facility Name	Facility Address	Facility Permit Number	Contact
Municipal Solid Waste			
BFI-Charlotte Motor Speedway Landfill V	5105 Morehead Rd, Concord (Cabarrus) NC	Municipal Solid Waste LF 1304-MSWLF-1992	Bart Keller (704) 262-6002
Yard Waste and C&D			
Cabarrus County C & D Landfill	4441 Irish Potato Road Concord (Cabarrus) NC	C & D Landfill 1302-CDLF-2006	Randall Foster (704) 920-2951
Hwy 49 C&D Landfill & Recycling (Greenway Waste Solutions)	2105 Speedrail Court, Harrisburg (Cabarrus) NC	C&D Landfill: 1306-CDLF-2000; Composting: 1309-COMPOST-;	Ron Gilkerson (704) 895-0329
Greenway Recycling	2105 Speedrail Court, Harrisburg (Cabarrus) NC	Material Recovery Permit No. 9007-MWP	Ron Gilkerson (704) 895-0329
Wallace Farms, Inc. Soil Products	14410 Eastfield Road, Huntersville (Mecklenburg), NC	Type 3 Composting Facility 6022-COMPOST	Eric Wallace (704) 875-2975
Materials Recycling			
Sonoco Recycling	3901 Barringer Drive Charlotte (Mecklenburg) NC	Material Recovery Facility	Kenny King (704) 525-8728
Sonoco Recycling	300 E. Henderson Street Salisbury (Rowan) NC	Material Recovery Facility	Levon Jacobs (704)633-5891
Iredell Recycling, LLC (Benfield SS)	174 McKenzie Rd Mooresville (Iredell) NC	Material Recovery Facility	Brian Burgess (704) 633-1513
U. S. Tire Recycling LP	6322 Poplar Tent Road, Concord (Cabarrus) NC	Tire Recycling 1303-TIRELF-1988	Gene Helton (704) 784-1210
Millennium Metals	6480 Mount Pleasant Road S Concord (Cabarrus) NC	Scrap Metal Recycling	Stuart ? (704) 723-9620
Power House Recycling	175 Lane Parkway Salisbury (Rowan) NC	Electronic Recycling	???? (704) 322-3093
Hazardous Waste			
Cabarrus County HHW Collection Facility	246 General Services DR SW Concord (Cabarrus) NC	Household Hazardous Waste 1308-HHW	Kevin Grant (704) 920-3209
Medical Wastes			
Stericycle	4403 Republic Court, Concord (Cabarrus) NC	Medical Waste TP 1305TP-TP-	William Ingraham 704.723.4957
Yard Waste & Disaster Debris Staging Locations			
Type 1 Yard Waste Facility - Annual Reporting	850 Warren C. Coleman Blvd Concord (Cabarrus) NC	Type 1 Yard Waste Facility Permit No. YWN-13-001	H. Allen Scott, Jr. (704) 920-5370
Debris Staging Site 1	PIN 850 Warren C. Coleman Blvd Concord (Cabarrus) NC	Disaster Debris Staging Site	H. Allen Scott, Jr. (704) 920-5370
Debris Staging Site 2	PIN South Side Ivey Cline Road	Disaster Debris Staging Site	H. Allen Scott, Jr. (704) 920-5370

**FIGURE 5-2
CABARRUS COUNTY DISPOSAL REPORT FOR ALL CATEGORIES BY FACILITY¹**

Facility Type	Facility Name	ID No.	Permit No.	Tons Received	Tons Transferred
CD LF	Cabarrus County CD LF	P0796	1302-CDLF-2006	24,324.72	
CD LF	Highway 49 C&D Landfill and Recycling (Greenway)	P0946	1306-CDLF-2000	72,136.83	
CD LF	BFI-Lake Norman Landfill	P0865	5504-CDLF-1999	15.91	
MatRe TP	Uwharrie Environmental MRF	P0468	6202-MRF-MWP	16.68	11.66
MatRe TP	Boggs Paving Asphalt Shingle Recycling	P1180	9008-TP-2009	846.00	33.48
MSW LF	Chambers Development MSW LF	P0976	0403-MSWLF-2010	1,245.59	
MSW LF	BFI-Charlotte Motor Speedway Landfill V	P0470	1304-MSWLF-1992	121,499.18	
MSW LF	Rowan County Landfill	P0169	8003-MSWLF-1988	8,504.85	
Compost	Greenway Waste Solutions of Harrisburg	P1080	1309-COMPOST	8,918.07	

¹The primary source for this information is DENR's 2010-2011 Landfill Report for Cabarrus County.

Cabarrus County in FY 2010-2011. Approximately 44 percent of these wastes are assumed to originate in the City of Concord on a per capita basis.

2 Disposal

All residential MSW collected in Concord by the contract collector is disposed at the BFI-CMS Landfill V located on Morehead Road within the City limits.

Waste from multi-family housing developments not serviced by the City and collected by other private haulers is transported to the landfill of their choice.

3 Recycling

All curbside collected recycling is transported to Sonoco Recycling's Charlotte Material Recovery Facility for processing.

4 Composting

All residential yard waste collected curbside by City crews is taken to Wallace Farms for grinding and composting. Oversized materials are taken to the Highway 49 C&D landfill for grinding and is either composted or sold as boiler fuel.

5 Household Hazardous Waste (HHW) and Special Wastes

Concord residents are required to transport their HHW to the Cabarrus County HHW for segregation and proper disposal. The HHW is open two days (the first Wednesday and third Saturday) each month to receive HHW. They also accept fluorescent bulbs, used oil and oil filters, other vehicle fluids, and provide a drop-off facility for used tires and white goods.

B. Commercial, Industrial, Institutional (CII)

1 Collection

Commercial, industrial, and institutional customers (CII) must contract with a private hauler for waste disposal. Commercial generators in 'strip malls' are required to use dumpster service and are encouraged to partner with neighboring businesses for the service.

CII generators operating out of a house or store front building may request rollout container service for a fee where dumpster service is not available or practical.

Concord provides small businesses with cardboard recycling using 8 CY dumpsters serviced by a private contractor. City crews provide small businesses with recycling of small quantities of cardboard, office paper mix. The downtown businesses receive those plus mixed paper, and bottles/cans in the downtown.

Concord facilities receive recycling collections provided by City crews. City facilities recycle cardboard, office and mixed paper, and bottle/cans.

Multi-Family Housing complex with more than five (5) units (families or tenants) is classified as a commercial enterprise. These apartment complexes are required to utilize dumpsters (unless an exception is granted) and to pay for bulk container rental and waste disposal using a private-sector collection service of their choice.

Generally speaking, the following apply within the City of Concord:

- Most large CII generators place refuse into front load dumpsters for private hauler pickup.

- Some larger generators place refuse into compactors on site which are serviced by private haulers.
- Cabarrus County Schools use front load dumpsters for refuse disposal and cardboard recycling. Other recyclables are segregate for collection and recycling provided by the City of Concord or Cabarrus County. The City and the County have partnered to provide school recycling programs at the Cabarrus County School system.
- Some larger generators place corrugated cardboard into front load dumpsters for recycling through a program provided by the City or by a private hauler.
- Most ABC-licensed facilities have 96-gallon cart service or other small containers for recycling beverage containers. This collection service is provided by private haulers.
- County facilities are served by 96-gallon recycling carts; paper collected by County staff and bottles and cans under franchise agreement terms by Republic Services.
- Some CII generators choose to self-haul recyclables to any of the three County-operated drop-off centers.
- Many CII generators use commercial landscape firms who remove yard trimmings.

2 Disposal

Private haulers make their own arrangements for disposal locations, although most choose the CMS Landfill due to its proximity in Concord. Table 5-1 shows locations other than CMS Landfill that are recipients of wastes generated by CII generators.

3 Recycling

Private Haulers in most cases are free to choose a processing facility. The more popular facilities for Cabarrus County include either the Metrolina Recycling Center located in Charlotte, owned by Mecklenburg County and operated by FCR; or SONOCO's Charlotte MRF. Both MRF's are single-stream processing.

Recycled cardboard from the City's program is transported to Iredell Recycling. The materials collected by City crews is transported to Sonoco Recycling in Salisbury, NC.

4 Composting

Private generators and haulers make their own decisions about which facility to use for yard waste processing. The Highway 49 C&D landfill in Harrisburg and Wallace Farms in

Huntersville are available and in close proximity, but there are others in the region as well.

5 Household Hazardous Waste (HHW) and Special Wastes

CII establishments make their own arrangements for hazardous and special wastes. The County HHW Facility accepts electronics from small business.

5.3 Construction & Demolition (C&D) Waste

A. Residential Sector

1 Collection

The City's collection contractor will collect small quantities of C&D from homeowner projects. The City collection program will not collect C&D generated by contractors performing remodeling or home improvement projects. These contractors are required to remove and dispose of the C&D they generate. Due to widespread abuse and enforcement challenges, the 10 CY limit on C&D was reduced to 4 CY beginning July 1, 2011. C&D waste collected at residential location is disposed at the BFI – CMS Landfill.

2 Disposal

Several facilities accept C&D are presented in Table 5-1. The Cabarrus County C&D Landfill receives approximately 25 percent and the Highway 49 C&D Landfill receives the remaining 75 percent.

3 Recycling

The Highway 49 C&D Landfill operates a sorting and recovery operation and is able to recover and recycle 65 percent of all C&D materials they receive. This capability significantly reduces the C&D landfilled in Cabarrus County.

B. Commercial, Industrial, Institutional (CII) Sector

1 Collection

The CII sector is required to contract in the private sector for disposal or recycling of C&D waste generated by their activities. Disposal of C&D from Cabarrus County was received at the facilities Listed in Table 5-1. Container types and sorting requirements are worked out between generator and hauler, based on cost and any recycling requirements the projects may have (e.g. Green Building Council LEED).

2 Disposal

Several facilities accept C&D are presented in Table 5-1. The Cabarrus County C&D Landfill receives approximately 25 percent and the Highway 49 C&D Landfill receives the remaining 75 percent.

3 Recycling

The Highway 49 C&D Landfill operates a sorting and recovery operation and is able to recover and recycle 65 percent of all C&D materials they receive.

5.4 Land Clearing and Inert Debris

LCID is handled for both Residential and CII generators through private haulers and taken to disposal facilities of their choosing. Cabarrus County has three LCID permitted facilities: Cabarrus LCID Landfill, Highway 49 C&D Landfill and Tarheel Bark Processing.

5.5 White Goods

A. Residential

1 Collection

White goods are collected curbside weekly on a call-in schedule by the collection contractor and transported to the Cabarrus County WG Facility located adjacent to the Cabarrus County HHW Facility for processing.

Scavenging for scrap metal, including white goods has significantly increased since the last Solid Waste Management Plan Update. The high prices for scrap metal and the depressed economy have combined to drive this increase. Often a resident will call and schedule a white good collection and it will be gone before the collector arrives to collect the materials.

2 Disposal

Cabarrus County currently is contracting with State Line Scrap Metal in Gastonia, to remove all refrigerants and to recycle the scrap metal.

B. Commercial

1 Collection

CII generators must make arrangements with a private hauler to collect and dispose of white goods at one of the local scrap metal contractors.

2 Disposal

Local scrap metal contractors accept white goods, remove refrigerants and recycle the metal. Local scrap metal dealers are listed in Table 5-3.

5.6 Scrap Tires

A. Residential

1 Collection

Scrap Tires are collected curbside for residents on a call-in schedule by the collection contractor. All scrap tires are stored at the City Operations Center and periodically transported to US Tire Recycling in Concord.

TABLE 5-3 LOCAL SCRAP METAL FACILITIES			
Company	Foils Inc.	Millennium Metals Recycling	Action A1 Demolition & Recycling, LLC
Address	2283 Highway 49 S. Harrisburg, NC 28075	6480 Mount Pleasant Rd S Concord, NC 28025	830 Florence Ave Concord, NC 28025
Telephone	704-455-5134 704-455-5150 (fax)	(704) 723-9620	Unknown
Services	Foils Inc. is metal supplying and recycling company serving both businesses and private individuals within a 50 mile radius of Harrisburg, N.C., including Cabarrus County, Mecklenburg County, Rowan County, Stanley County, Union County and Iredell County.	Scrap Dealer	Action A1 Demolition buys and sells scrap metal of many different types, including scrap aluminum, copper, brass, lead, wire, stainless steel, radiators, batteries and steel in North Carolina, South Carolina, Georgia, Tennessee, Virginia and West Virginia.
Business Hours:	Monday-Saturday	Monday-Saturday	Monday-Saturday

2 Disposal

US Tire Recycling is located in Concord and processes scrap tires from locations within this region.

B. Commercial

1 Collection

Generators in this sector make their own arrangements with private haulers to transport scrap tires to the processor.

2 Disposal

US Tire Recycling is located in Concord and processes scrap tires from locations within this region.

5.7 Electronics

A. Residential

1 Collection

Abandoned TV's and old computers and computer components were transported to the Cabarrus County HHW for recycling until June 30, 2011. Beginning July 1, 2011 Concord implemented scheduled curbside collection of EL waste in response to the landfill ban for TVs and Computers. Electronics are collected curbside weekly on a call-in schedule by the collection contractor. We anticipate the convenience of curbside collection will increase recovery and reduce potential illegal dumping.

2 Recycling

Electronics collected by the City are picked up by Power House Recycling in Salisbury for recovery and recycling. A Total of 279 Tons of Electronics were collected in 2011-2012.

B. Commercial

1 Collection

Most CII generators make their own arrangements for collection with a private processor.

2 Recycling

Small businesses may deliver electronics to the County HHW Facility location.

This Page Left Blank Intentionally

Section 6.0

Assessment and Actions

6.1 Introduction

Each solid waste management program and practice is described below as required by North Carolina General Statute 130A-309.09A(b). Each program is described as it currently exists and identifies potential changes proposed for the planning period. It must be noted that the impact of the economic downturn has significantly impacted local government revenues, creating budgetary constraints that make it difficult to continue funding at the current funding level for solid waste and recycling services. The City of Concord intends to maintain the programs and services currently provided. However, as federal and state funding continues to decline, it will be necessary to evaluate solid waste programs and services and to make adjustments in services provided to achieve budget targets.

6.2 Reduction at the Source

A. Current Program Assessment

- 1 **One Cart per Residence:** The City provides one residential garbage cart per residence at no charge, but applies a \$9.00 per month fee for each additional cart needed to contain all waste generated by the household. Bags of waste outside the cart are prohibited. The fee covers the additional cost to service extra carts and provides a financial incentive to recycle and reduce waste.
- 2 **Solid Waste Resource Guide:** The resource guide was developed to provide customers with a single source of all solid waste management programs. Householders are encouraged to find a new home for usable products commonly discarded as waste. Too much clothing and furniture arrives curbside for disposal as bulky waste that could easily be donated for reuse.
- 3 **Greenscaping, The Easy Way to a Greener, Healthier Yard:** The City developed this brochure to encourage sound lawn management as a pathway to lower water utilized to irrigate residential lawns. This brochure encourages Grasscycling as “Mow higher, mow regularly, and leave the clippings.” Backyard composting is also encouraged to produce nutrient rich compost for gardens and soil amendment as a way to reduce fertilizer usage.
- 4 **Grasscycling:** Grasscycling is encouraged through our educational program, but we have observed limited public interest in Grasscycling or backyard composting. Bagged lawn waste is a significant component of our yard waste stream, and is problematic due to the sheer volume and products of decomposition. According to NC State’s website, *“Grasscycling is an ecologically and financially sound program for your lawn. Here are a few simple guidelines for mowing, fertilizing, and watering.*

If you follow these suggestions, you will no longer need to bag clippings, and your lawn will grow at an acceptable rate, retain a green color, and develop a deeper root system.”

- 5 **Backyard Composting:** The City partners with Cabarrus County to provide backyard composting classes to citizens. Additionally, Solid Waste is partnering with Parks and Recreation to offer backyard composting as an ongoing educational opportunity through the Parks and Recreation educational program.
- 6 **Promotion of Non-toxic Products:** Use of common products found in most grocery stores to prepare non-toxic cleaning products is a popular topic at our public education events.
- 7 **Junk Mail Reduction:** Junk mail is accepted in the residential recycling program. We do promote junk mail elimination in our educational programs, but a relative few express interest in junk mail reduction.
- 8 **Swap ‘N Shop:** The City of Concord promotes a web-based swap shop on facebook. Individuals list items available to a new home and interested persons contact the current owner to discuss picking up the item.
- 9 **Paint Exchange:** Concord partners with Cabarrus County HHW facility to promote a paint exchange located at the HHW. Our literature and web-site direct individuals to the HHW for handling HHW, a recycling drop-off location, and a source of reusable materials such as paint.

B. Intended Actions

- 1 **Improvements to web-site:** General improvements are planned to make the solid waste web-page more user friendly.
 - a Place greater emphasis upon the importance of recycling.
 - b Add information encouraging donation of usable products to organizations targeting reuse of items or providing needed resources to families or individuals in need. Evaluate the possibility of listing organizations that will accept or pickup clothing and furniture for reuse or repurposing.
 - c Add resources targeting backyard composting and grasscycling to reduce yard waste generation and increase knowledge base that these practices are beneficial to gardens and lawns.
 - d Add detailed information about the importance of electronic recycling and disposal and recycling options available to residents and to businesses.
- 2 **Examination of Educational and Enforcement Opportunities for Source Reduction Strategies:** Residents have discovered creative ways to avoid placing all waste into carts and disguising household waste as bulky waste material. This practice allows

customers to avoid repurposing and reuse of usable materials. The result is residential MSW has increased during this economic downturn while other waste sectors have declined.

6.3 Collection

A Current Program Assessment

- 1 July 1, 2011 transitioned from semi-automated collection with rear load garbage trucks to automated collection using automated side-loaders for of waste collection. This collection methodology requires all waste material to be placed into rollout carts for collection. While collection is much cheaper and more efficient, customers have discovered ways to avoid the one-cart rule. Household waste disguised as bulky waste has become problematic. Extra bags go into cardboard boxes or are mixed with legitimate bulky waste for collection.
- 2 Along with automated waste collection, the City transitioned from weekly recyclables collection using 18-gallon bins to every other week fully automated collection using 95-gallon rollout carts. Recyclables collection his increased by 55 percent compared to 2010-2012 collection rates.

Customers have responded favorably to the convenience and extra storage capacity provided by the 95 gallon carts. Customers have now begun to request second recycling cart that is available without a fee to encourage recycling.

- 3 Implemented scheduled collection of bulky waste and other curbside collections to allow better monitoring of these waste streams and to improved route efficiency.
- 4 Yard waste collection performed by City crews using knuckle boom (grapple) trucks and dump trucks for limbs and rear loading garbage trucks for bagged yard waste
- 5 Loose leaf collection performed by City crews using trailer mounted vacuum leaf machines towed by dump trucks requiring a 3-man crew.

B Intended Actions

- 1 Unscheduled bulky waste placed curbside remains unacceptably high and will be an education emphasis over the next 2 years.
- 2 Illegal dumping at vacant houses and vacant lots has been identified as a major challenge. Public education encouraging residents to call and report illegal dumping will be an education emphasis.
- 3 Evaluate options to strengthen enforcement efforts and to encourage compliance with pre-collection guidelines and advanced scheduling.

- 4 Public education encouraging customers to donate usable items to charitable organizations as an alternative to disposal will be evaluated in an effort to reduce bulky waste quantities.
- 5 Conduct a pilot scale evaluation of database and GIS driven wireless technology to improve collection efficiency by pre-locating yard waste for scheduled collection by City forces. Reduced mileage and optimization of daily crew assignments are the goals to reduce collection costs.

6.4 Recycling and Reuse

A Current Program Assessment

- 1 **Curbside Residential Recycling Program:** Beginning July 1, 2011, the City transitioned from weekly recyclables collection using 18-gallon bins to every other week fully automated collection using 95-gallon rollout carts. Participation is currently measured at 66.8 percent. Recyclables collection has increased by 55 percent over FY2011 collection rates. Table 6-1 presents the monthly recycling collection data comparison of FY2012 to FY2011.
- 2 **Office Paper Recycling Program:** Office paper mix is collected at businesses to encourage recycling and waste reduction. This service is available at no cost using the one man collection crew to encourage small businesses to recycle.
- 3 **Mixed Paper Recycling Program in Schools:** Mixed paper is collected by City forces at City and County facilities, schools, and businesses participating in the Business District Pilot Program. Mixed paper recycling is growing in popularity among the business community but is not available to those located outside the Central Business District.

The City of Concord, Cabarrus County, and the Cabarrus County School system partnered to develop and implement a recycled paper collection program in 2009 to make recycling available to every classroom in the Cabarrus County School System. Two private schools have now joined this recycling program.

- 4 **Bottle & Can Recycling Program in Schools:** is available to City facilities, schools, and the Central Business District. This program was implemented in 2010. Participation has been lower than expected and cooperation at the local schools has been disappointing. There is opportunity for significant growth in this recycling program.
- 5 **Corrugated Cardboard Recycling Program:** The City has provided commercial OCC recycling since 1991. In 2001 this program was expanded to small businesses where recycling opportunities were lacking.

TABLE 6-1
CURBSIDE COLLECTION IMPROVEMENTS USING 95-GALLON ROLLOUT CARTS – 2011-2012
CONCORD, NORTH CAROLINA

METROLINA	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Recycling, tons	292.8	259.3	224.9	289.8	292.0	344.0	272.5	279.6	277.0	279.0	275.1	300.1
METROLINA	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11
Recycling, tons	283.1	287.8	319.3	309.0	333.8	358.1	296.5	256.9	304.9	284.5	289.3	255.8
SONOCO Recycling	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
Recycling, tons	427.3	483.2	452.3	465.0	450.4	495.5	503.1	424.5	492.1	462.4	493.6	457.8
Net Increase, Ton/Mo. From 2011 to 2012	144.3	195.4	132.9	156.0	116.6	137.4	206.6	167.6	187.2	177.9	204.3	202.0
Net Increase, % From 2011 to 2012	51.0	67.9	41.6	50.5	34.9	38.4	69.7	65.3	61.4	62.5	70.6	79.0

Performance Data	Total Annual Increase	Monthly Average	Extremes	
			Max	Min
July 2010 to June 2011, Tons	3,579	298.2	358.1	255.8
July 2011 to June 2012, Tons	5,607	468.1	503.1	424.5
Net Increase, Tons	2,028	169.9	--	--
Increase, 2011 to 2012, %	56.7%	56.7%	--	--

The City contracted with Signature Waste, Inc. to provide 8-cubic yard dumpster specifically designed for corrugated cardboard, and to provide weekly collection for high volume generators. This service does not include higher volume generators such as grocery and department stores. In 2012 Benfield Sanitation Service replaced Signature Waste as the contractor. Benfield takes the OCC to Iredell Recycling for processing and ships the baled material to Sonoco Recycling for reuse.

- 6 **Multi-Family and Downtown Business Pilot Programs:** These two pilot programs are described in Section 5.1 and were implemented in FY 2005-2006. Limited data due to low participation makes it difficult to evaluate expanded recycling beyond the downtown business district. Interest and participation in recycling services available to businesses and restaurants located in the downtown business district has increased. Surprisingly, there is limited interest among the multi-family housing communities within Concord to participate in the pilot program.

Multi-family housing complexes are considered businesses and are responsible for their waste removal. Recycling in rental communities is an untapped sector within Concord. The logistics of such programs and managing the recycling centers are a challenge and will require the cooperation and participation of the management team at each apartment complex.

B Intended Actions:

- 1 **Multi-Family Housing Recycling Pilot Study:** City personnel will continue to evaluate the cost and strategies available to provide or to encourage recycling at multi-family developments. The pilot program will conclude June 2015. After that date, the data will be compiled and analyzed, and a recommendation presented to Council in January 2016.
- 2 **Downtown Business Recycling Pilot Study:** Staff will continue the evaluation of solid waste disposal and recycling programs in the Downtown Business District. The pilot study will conclude June 2015. After that date, the data will be compiled and analyzed, and the economic impacts and logistical challenges for continuing or expanding these services will be evaluated and presented to the City Manager and City Council for consideration. By January 2016.
- 3 **Evaluation of Mixed Paper and Office Paper Collection Program:** Staff will complete evaluation the benefits and economic impact of transitioning the office paper collection program to mixed paper collection as a means to improve collection efficiency, reduce cost, and increase the tons collected. Preliminary indications are that proceeding with a transition to mixed paper collection will benefit the City's recovery efforts. Expanding the paper collection program gradually from 250

customers in 2011-2012 to 360 customers by 2021-2022 holds the potential for increasing recovery from 298 Tons/Yr. to 588 Tons/Yr. with a relatively modest impact upon the solid waste budget. A phased expansion of mixed paper recycling to a larger segment of the business community is recommended to assure staff can sufficiently control changes in routing and scheduling to maintain efficiency and assure service delivery standards can be maintained.

- 4 **Expanding Cardboard Recycling:** Expanding the cardboard collection by 1 dumpster per month will increase the number of dumpsters from 317 in 2011-2012 to 437 by 2021-2022. Collection tonnage is anticipated to increase from the current 1,400 tons/Yr. to 1,960 Tons/Yr. by 2021-2022.
- 5 **Evaluation of Bottles And Cans Recycling Program:** Staff will evaluate the benefits and economic impact of expanding bottles and can recycling to a larger segment of the business community

6.5 Composting and Mulching

A Current Program Assessment

- 1 **Yard Waste Collection:** City crews provide curbside collection of residential limbs, grass and leaves on a weekly schedule. Loose leaf collection is provided from late October through the end of January.

The City collects only yard debris produced by property owners at residential sites. Problems continue with contractors performing work over the weekend and placing yard debris at the curb and owner claims he performed the work. Large piles of limbs and grass add significant expense to collection program.

- 2 **Composting Facilities:** Three facilities capable of receiving and composting yard waste are located in the area. Two are located in Cabarrus County while the third is located in Mecklenburg County near Huntersville.

- a **Tarheel Bark:** This facility operates under a reporting permit that limits quantities to 6,000 cubic yards per quarter. This limited capacity prevents the City from utilizing this facility for yard waste processing and recycling.

Location: 8829 Rocky River Road, Harrisburg, NC

Permit: 1307-COMPOST-

Manager: Greg Okorn, 216.904.6720

- b **Highway 49 Construction and Demolition (C&D) Landfill:** The Highway 49 C&D facility is permitted as a yard waste processing and disposal facility, but currently only accepts yard waste from the Town of Harrisburg and the City of Concord. The facility is researching methods to market mulch and compost before entering into a long-term agreement with Concord.

Location: 2100 Speedrail Court, Harrisburg, NC
Permit: 1306-CDLF-2000-; 1309-compost-
Manager: Ron Gilkerson, 704.895.0329

- c **Wallace Farms:** Wallace Farm, a commercial composting facility located in Huntersville, NC, produces a retail soil amendment sold in many garden supply stores. The City of Concord transports limbs, grass and leaves to Wallace Farm to ensure these materials are processed, composted and used beneficially. The future of Wallace Farms is uncertain, as the development of exclusive housing communities continues to be constructed around their facility. Wallace Farm did renewing their permits through 2015.

Location: 14410 Eastfield Rd. Huntersville, NC
Permit: 6022-COMPOST-
Manager: Eric Wallace, 704.875.2975

B Intended Actions

Disposal Contracts: City will continue to negotiate contracts with both the Highway 49 C&D Landfill and Wallace Farms as processing and composting facilities to receive yard waste from the City of Concord. Target completion July 2014..

6.6 Incineration With and Without Energy Recovery

A Current Program Assessment

At this time, no known incineration of waste, with or without energy recovery, takes place within Concord.

B Intended Actions

No action needed.

6.7 Transfer Outside Geographic Area Covered by This Plan

A Current Program Assessment

- 1 **Sonoco Recycling – Charlotte, NC:** Receives curbside recyclables collected by the collection contractor.
- 2 **Sonoco Recycling – Salisbury, NC:** Receives paper, loose cardboard, and bottles and cans collected by City crews for the school and business recycling programs.
- 3 **Wallace Farms – Huntersville, NC:** Receives yard waste from municipal collection program for processing and composting.
- 4 **Highway 49 Construction and Demolition (C&D) Landfill – Harrisburg, NC:** This facility receives vegetative materials and C&D from residents, businesses, and City operations. Vegetative materials are composted or shipped for boiler fuel, and C&D is sorted and recovered at a 65% diversion rate.

- 5 **Cabarrus County Landfill – Cabarrus County, NC:** Some residents deliver solid waste and recycling to this landfill for disposal and recycling. Waste delivered at this location are transferred to the BFI-CMS Landfill V, and recyclables are transported to Sonoco Recycling in Salisbury, NC
- 6 **Iredell Recycling (MRF) – Mooresville, NC:** Cardboard collected at businesses by the commercial dumpster program are delivered to this facility for baling and recycling.
- 7 **Millennium Metals – Mt. Pleasant, NC:** Non-ferrous scrap metals collected from City operations are delivered to this facility for sorting and recycling.
- 8 **Metrolina Recycling Facility – Charlotte, NC:** Until July 2011 curbside recyclables were delivered to this facility for sorting and recycling. This facility is owned by Mecklenburg County and serves Mecklenburg and surrounding facilities.

B Intended Actions

- 1 No changes are anticipated in the use of these facilities as described.

6.8 Disposal

A Current Program Assessment

- 1 **Waste disposal:** All city residential waste is disposed at the BFI-CMS Landfill V under the terms of the franchise agreement. Residential waste generated within the City of Concord is accepted without disposal fee with service guaranteed through 2033 at the landfill or with a transfer station to be constructed by the landfill if it should close before the period covered by the agreement.
- 2 **Franchise Agreement:** Plans were initiated in 2002 to expand the BFI-CMS Landfill by adding an additional 70 feet of vertical height to the existing landfill. This expansion added an estimated 25 to 30 years to the life of the landfill. The Franchise Agreement provided waste disposal services for 30 years. The Franchise Agreement also provides disposal at no charge for the residential waste generated by the City for the entire term of the Agreement. If the landfill closes before 2033, the landfill will construct a transfer station and continue solid waste disposal services through the end of the agreement. Later changes to the franchise agreement increased the level of funding to cover the full cost of the City's residential recycling program.

B Intended Actions

- 1 Continue to utilize the benefits of the franchise agreement through disposal at the BFI-CMS Landfill V through 2033.
- 2 No changes are anticipated in disposal location or procedures.

6.9 Education in Community and Schools

A Current Program Assessment

- 1 **City Circular:** The City Circular is a magazine published quarterly and direct mailed to homes and businesses within the City. Each issue contains important information about City services. Solid waste and recycling topics are featured in each issue to focus public awareness of and raise understanding on waste collection and disposal, recycling, waste reduction, and reuse challenges facing our community.
- 2 **Solid Waste Resource Guide:** The resource guide was developed to provide customers with a comprehensive source of rules and guidelines associated with our pre-collection practices, collection operations, and related topics
- 3 **Public Information Officer:** The City's Public Information Officer networks with the Cabarrus County Public Information Office that programs the local cable television station. They schedule a public awareness program on which the City has appeared to discuss solid waste issues. The PIO also maintains the automated telephone system used to update customers on service schedule changes and coordinates with local media to provide stories important to the public awareness of solid waste and recycling issues.
- 4 The ***Environmental Educator Specialist*** provides outreach and education through engagement with Civic organizations and neighborhood associations, and is instrumental in the development of literature to assist in raising the awareness of the importance of recycling and waste reduction. Our Educator is in great demand to make presentations in public school classes and with other citizen groups.

The Environmental Educator Specialist position was created and filled in 2007 to provide public educational and outreach activities and information targeting recycling and waste reduction, and stormwater education. The Environmental Educator Specialist's responsibilities have been broadened to include Solid Waste, Stormwater, Water Resources, Waste Water Resources, and Air Quality.

Solid Waste educational activities will focus on strengthening the City web-site, by enhancing content and improving user friendliness. Our Educator maintains a "Did you know..." section that is updated bi-monthly, and created and maintains the on-line Community Swap Shop, and the Educator Blog.

The most exciting goal is creation of a Citizens' Academy, focusing on community leaders initially and then on teachers. The initial emphasis will be to create a corps of community advocates who can promote recycling, reuse and waste reduction throughout the community. Once that goal has been achieved, the target audience will shift to interested citizens, encouraging participation from minority and low-income communities.

- 5 **Speakers Bureau:** City staff attends neighborhood and civic organization meetings upon request. The focus of these presentations provide educational information,

share information on new programs or changes in service delivery as a means to maintain a high level of customer awareness and understanding of service delivery.

- 6 Civic Education:** Civic Education engages 3rd grade students in the public school system in a learning experience focusing on increasing their knowledge and understanding of local government and the services provided. Recycling, Reuse, and Waste Reduction presentations and educational materials on these important topics are designed for the students as well as their family. Students carry home the important message about the importance of recycling and reuse.
- 7 Concord 101:** Concord 101 is a 13 week education experience for the Citizens of Concord. Participants learn about their local government and the services it provides, helping members of this community better understand how these services work for them. Solid Waste provides a presentation on solid waste, recycling, and reuse. Many questions from participants foster stimulating discussions on waste management and environmental issues. City staff is able to identify public concerns and the public's understanding of the services provided. The topics identified and discussed are incorporated into future planning process for improvements to how services are provided and communication needs.
- 8 Solid Waste Services Supervisors make personal contact with customers:** Direct contact improves communication with our customers. Customers unreachable at their home or by telephone are left a cart hanger that explains the pre-collection ordinance violation and describes the corrective action necessary to achieve compliance. The focus of these activities is to educate and raise awareness of the solid waste management program and their part in making collections a success for them and the collection crews.
- 9 Informational Cart Hangers:** Cart Hangers are delivered to customers who are discovered in violation of pre-collection practices for household waste, bulky waste, residential recycling, and yard waste collection. Educating our Customers to understand the regulations and what corrective actions are necessary to comply is an important component of our public education program.
- 10 Utility Bill Inserts:** Educational information are distributed several times each year using Utility Bill inserts. The information shared is intended to reinforce customer understanding in areas where excessive violation are observed or to remind customers of seasonal changes in service delivery.

B Intended Actions

- 1 Monitor the effectiveness of each educational and communication strategy for effectiveness.
- 2 Provide problem specific educational literature to raise awareness of problems that may arise.
- 3 Create Citizens Academy provide education and develop a corps of community advocates who can promote recycling, reuse and waste reduction throughout the community.
- 4 Enhance and develop a more user friendly web-page that will target the following areas:
 - a. **Strengthen emphasis upon the importance of recycling and reuse with examples of how to make this important change in lifestyle.**
 - b. **Promote and encourage reuse by donation of usable items to charitable organizations for redistribution as an alternative to disposal.**
 - c. **Promote backyard composting and grasscycling, and add educational information and instructions on how to practice these conservation measures.**
 - d. **Promote electronic recycling and reuse.**
 - e. **Add educational “how to” information on all areas of importance.**
 - f. **Make web page more user-friendly and attractive.**
 - g. **Evaluate the possibility of adding inter-active areas to promote education and environmental literacy.**

6.10 Management of Special Waste

A Scrap Tires

1. **Collection:** The City of Concord collects up to 4 used automobile tires curbside from residential customers on a weekly basis. Businesses are required to transport their tires for processing or disposal themselves.
2. **Recycling, Processing or Disposal:** The tires are transported to U. S. Tire Recycling located at 6322 Poplar Tent Road in Concord. In fiscal year 07-08, the City disposed of 36 tons of tires that were picked up a curbside from residents. A disposal fee is attached to all tire sales. U. S. Tire sends a bill to Cabarrus County for the City’s tonnage and the County is reimbursed by the State. The tires are ground up and sold to companies to make other materials such as playground ground cover, boiler fuel, etc. and materials that cannot be used for other purposes are landfilled at the facility.
3. **Intended Action:** The City of Concord intends to continue the used tire collection program

B White Goods

- 1. Collection:** The City of Concord Collection Contractor collects all white goods and scrap metal curbside from residential customers on a call-in basis. Collection usually occurs on the same day as garbage pickup.
- 2. Processing and Recycling:** All White Goods and scrap metal are transported to the Cabarrus County white goods collection and household hazardous waste drop-off facility. Cabarrus County hires a contractor to extract all the FreonTM from white goods and to process and recycle all the metal at this facility. This facility is located within the Concord City limits, and is located on General Services Drive, off Highway 49, and is used by other municipalities in Cabarrus County.
- 3. Intended Action:** Concord will continue to utilize this facility for processing and recycling of white goods and scrap metal.

C Electronics

- 1 Collection:** July 1, 2011 computers and computer components and abandoned televisions were banned from disposal in municipal landfills located within North Carolina. This date coincided with the start of Concord's new collection contractor. With this new contractor, curbside collection of waste electronics was implemented on a call-in schedule. Other electronics not specifically listed in the North Carolina legislation are also recovered and recycled.
- 2 Processing and Recycling:** All electronics collected are transported to Power House Recycling in Salisbury, North Carolina for recovery and recycling. Power House has been certified and complies with the legislation's certification requirement. Future action includes making preparation to augment the White Goods Collection program so that these trucks will be able to collect curbside electronics for recycling, with a target date to begin in January 2010 in accordance with North Carolina General Statute **§130A-309.09A(b)(6)e**. The decision to combine these programs is based on the State of North Carolina banning certain materials from landfills contained in General Statute **§ 130A-309.10. Effective January 1, 2011** discarded computer equipment, as defined in G.S. **§ 130A-309.91** and discarded televisions, as defined in G.S. **§ 130A-309.91** are banned from municipal landfills.
- 3 Intended Action:** The City of Concord is considering proactive measures for e-waste collection to assure the North Carolina's ban on disposal of discarded televisions and discarded computers in municipal landfills is achieved as much as is practicable. The City will pursue opportunities to partner with other local governments to provide electronic collection events, and will target electronic recycling in our educational programs and literature.

D Abandoned Manufactured Homes

- 1 Enforcement:** The City of Concord Police Department Code Enforcement Division enforces minimum housing standards that apply to all housing including manufactured housing and mobile homes under City of Concord Code of Ordinances, Chapter 14 BUILDINGS AND BUILDING REGULATIONS and by reference the following State laws:
- 2 Enforcement Authorization:** State law references: Failure of owner of property to comply with orders of public authorities, G.S. 14-68; warrants to construct inspections, G.S. 15-27.2; building code council and building code, G.S. 143-136 et seq.; North Carolina Code Officials Qualification Board, G.S. 143-151.8 et seq.; enforcement of insulation and energy utilization standards, G.S. 143-139.2, 143-151.26 et seq.; manufactured housing and mobile homes, G.S. 143-143.8 et seq.; technical ordinances, G.S. 160A-76; regulating and licensing businesses, trades, etc., G.S. 160A-194; building inspection, G.S. 160A-411 et seq.; minimum housing standards, G.S. 160A-441 et seq.
- 3 Actions Taken:** The City will declare the abandoned mobile home subject to demolition following procedures presented in Section 14-47. A contractor will be hired and a lien placed upon the property for all cost associated with the removal of the abandoned mobile home.
- 4 Recycling and Recovery:** The home is emptied of all household goods and appliances, and these materials shall be properly stored, recycled or disposed. All mercury switches, smoke detectors, and other hazardous waste will be removed and properly disposed according to state and federal law. The contractor will recycle all items that can be separated for recycling as the mobile home is demolished, and the debris separated as necessary for acceptance at the local C & D landfill.
- 5 Intended Action:** No changes to the existing program are anticipated.

E Household Hazardous Waste

- 1. Collection:** Residents are required to deliver HHW to the Cabarrus County HHW facility located at 264 General Services Drive in Concord. The facility is opened two days per month to accept most household hazardous waste including electronics. HHW receiving is scheduled the *First Wednesday* (8:00 AM to 4:00 PM) and *Third Saturday* (8:00 AM to 1:00 PM) of each month. The facility also contains a residential self-service convenience center and is open Monday through Friday from 8:00 AM to 5:00 PM to accept recyclables at the recycling center.
- 2. Process and Disposal:** In 2001, Cabarrus County opened a HHW Facility located on City-owned property leased to Cabarrus County. All HHW received at this location is

classified, sorted, and properly packaged for collection and processing by licensed HHW disposal contractor.

3. **Intended Action:** The City of Concord will continue to encourage residents to use the HHW Facility by including location and contact information in our printed materials and in our public education programs.

F Fluorescent Lights

1. **Collection:** The City does not accept fluorescent lights from the public, but does recycling all fluorescent lights from city facilities.
2. **Processing and Disposal:** The City's Building and Grounds Department collects and packages all fluorescent lights for shipping. These lights are transported to
3. **Intended Action:** No change is planned as long as the Cabarrus County HHW facility continues to accept fluorescent lights from the public.

G Used Oil Filters

1. **Collection Program:** The City collects and properly disposes of used oil and oil filters. From City operations. The drained filters are packaged for shipping and collected by a recycling contractor for disposal.
2. **Intended Action:** Used oil filters are accepted by the Cabarrus County HHW, so the City has no plans to begin accepting these materials from the public.

6.11 Litter and Illegal Dumping

1 Current Program Assessment

- a **City Litter Collection Activities:** The City's Building and Grounds Department has two full-time employees that pick up litter, and all B&G employees are instructed to pick up litter they encounter wherever they see it throughout the City. Additionally, the City's Transportation Department sponsors an "Adopt a Street" program similar to the one promoted by NC Dept. of Transportation. These programs encourage organizations to walk streets and highways 3 times per year and collect litter in an effort to keep our roadways looking beautiful.
- b **'Litter Sweep' and 'Big Sweep':** City personnel participate in these two successful City and County sponsored programs. Additionally, neighborhoods, civic organizations and individuals are encouraged to volunteer for to clean up roadway litter on the main thoroughfares in the City of Concord and along creeks and streams throughout the City and County. The 'Litter Sweep' event is conducted semi-annually and the 'Big Sweep' event is conducted annually. These events are planned and conducted by the Environmental Educator to maintain a relevance and vitality to the community.

- c **Dead Animal Collection:** Solid Waste Services personnel collect dead animals from the roadway.
- d **Illegal Dumping Enforcement:** All cases of illegal dumping are referred to the Police Department Code Enforcement Division for action if located on private property or the Solid Waste Services Code Enforcement as outlined within City Code.

Reports of illegal dumping, littering or dead animals are received at the Customer Care Center and dispatched to the proper contact person for appropriate response. Contact representatives include:

- i Customer Care Center – Business hours only, 704.920.5555
- ii Illegal Dumping, located on private property – David Barnhardt, 704.920.5145
- iii Illegal Dumping, located in public Right of way – Kay Dellinger, 704.920.5360
- iv Litter Collection – David Ratchford, 704.920.5380
- v Dead Animals – Valerie Proper, 704.920.5361
- vi Spill Response – Fire Department Haz-Mat, 911

2 **Intended Actions**

- a No changes are anticipated unless illegal dumping continues to be a problem.
- b Working with the neighborhood association leaders, raise public awareness by speaking at their meetings and making them come to see the negative impacts illegal dumping can have on health and their neighborhood appearance if they fail to report illegal dumping when it occurs.

6.12 **Purchasing of Recycled Products**

A Current Program Assessment

- 1 **Sustainability Committee:** The City created a Sustainability Committee in the Fall of 2011 to study the needs and to facilitate conservation, recycling, reuse and purchasing of products manufactured of recycled materials when practical.
- 2 **Paper with 30 percent recycled content:** While the City already had a policy in place about using recycled content paper, very little was purchased by department. The Committee investigated warrantee information on copiers and printers and determined 30 percent content paper is acceptable. This paper is now the predominant paper stock utilized by the City.

B Intended Actions

The Sustainability Committee is still formulating a mission statement to guide the actions as the committee moves forward to identify and encourage sustainable practices throughout the City. The policy that follows is one of the early tasks successfully undertaken by the Committee. We are unable to list specific actions to be under taken at this time. However, the Committees work has been favorably welcomed by coworkers throughout the organization.

This Page Left Blank Intentionally

C. Sustainable Procurement Policy

I. INTRODUCTION

Sustainability is a broad term that addresses three fundamental principles: economic strength, environmental stewardship and social equity. A sustainable community is one that provides opportunity for all residents, cares for the environment, and has a long term vision for a prosperous future.

The City of Concord will pursue sustainable procurement so that the products and services that the City acquires and provides are as sustainable as the City can make them – with the lowest environmental and most positive social and economic impacts. Some attributes to be considered in evaluating potential procurement include:

- maximized recycling;
- absence of hazardous chemicals;
- minimized energy consumption;
- solid waste reduction;
- air quality enhancement;
- water conservation;
- disposal management;
- maximizing product useful life;
- minimized packaging; and
- biodegradability.

II. PURPOSE

The purpose of this policy is to implement the goals adopted by the City Council of the City of Concord and for Concord to be a responsible environmental leader.

The City of Concord is a large consumer, as well as a provider of goods and services. The procurement decisions of our employees and contractors can positively or negatively affect environmental, as well as economic and social attributes of life in the City. By including environmental considerations in our procurement decisions, along with our traditional concerns with price, performance and availability, we will remain fiscally responsible while promoting practices that improve public health and safety, reduce pollution, and conserve natural resources. The purpose of this document is to establish the framework for a sustainability-based procurement program for Concord.

By giving preference to environmentally friendly products whose quality, function, and cost are equal or superior to more traditional products, this policy will:

- conserve natural resources;
- minimize pollution;
- reduce the use of water and energy;
- eliminate or reduce environmental health hazards to workers and our community;
- support strong recycling markets;
- reduce materials that are landfilled;
- increase the use and availability of environmentally preferable products;
- reward vendors and contractors who reduce environmental impacts in their production and distribution systems or services;

- create a model for successfully purchasing environmentally preferable products that encourages other purchasers in our community to adopt similar goals;
- support locally produced goods and services; and
- educate ourselves, our vendors, and our end users.

From an environmental perspective, the following are questions to consider prior to selecting a product to be purchased.

- Is the product less hazardous than available alternatives?
- Is it reusable or more durable?
- Is it made from recycled materials?
- What happens to the product at the end of its useful life?
- Can it be recycled?
- Will the manufacturer take the product back?
- Will it need special disposal?
- Does it conserve energy or water?
- Is it made from plant-based raw materials?

III. POLICY

All City departments shall make every reasonable effort to reduce the amount and toxicity of solid waste they generate, reuse and/or recycle materials and equipment recoverable from their operations, and maximize the procurement of recycled, energy efficient, and non-toxic products. Department directors shall monitor compliance with the policy in collaboration with the Purchasing Manager.

It is not the intent of this policy to require a department, buyer, contractor, or grantee to: (1) take any action that conflicts with local, state or federal requirements; (2) procure products that do not perform adequately for their intended use; (3) exclude adequate competition; or (4) pursue products not available at a reasonable price in a reasonable period of time.

IV. DEFINITIONS




- A. Environmentally Responsible - products or product usage procedures which are acknowledged to have minimal impact on the environment. Such products or procedures should reduce environmental impact through their composition and/or recyclability or by reduction in quantity and toxicity of waste products, energy use or water consumption.
- B. Fiscally Responsible - The cost factor or purchase price for recycled products, or for more environmentally responsible items, should be consistent with a suggested variance of 10% above the acquisition cost for similar or less environmentally responsible items. Additional costs should be counter balanced by savings from improved usage procedures.
- C. Recycled Product(s) - Products made with an identifiable percentage (1% - 100%) of post consumer material content or of discarded virgin materials salvaged from the industrial waste stream. High-content recycled products contain a minimum of 50% of post consumer material.
- D. Waste Reduction - The act of avoiding, eliminating and reducing the amount of solid waste at the source of generation, at the point of usage and at the time of its discard.

- E. Non-Toxic Product(s) - Any item which is not considered hazardous waste and that does not otherwise pose a threat to short or long-term human health during its use.
- F. Energy-Efficient Product(s) – Products that meet the US Environmental Protection Agency’s Energy Star qualifications or US Department of Energy’s Federal Energy Management Program (FEMP) and vehicles that meet the US Environmental Protection Agency’s SmartWay qualifications.
- G. Life-Cycle Cost – The total cost of a product including procurement, use, maintenance, and disposal.

V. THIRD PARTY CERTIFICATIONS, STANDARDS AND GUIDELINES

There are several national and international organizations which evaluate products and services based on environmental impacts. For example:

	<p>GREEN SEAL, a nationally recognized nonprofit organization, certifies a variety of products that pass stringent testing standards. Approved products carry a Green Seal logo, recognized throughout industry and government as a leading environmental standard. Green Seal bases its work on thorough scientific evaluations using internationally accepted methodologies. Products are evaluated using a life-cycle approach so that all significant environmental impacts of a product are considered, from raw materials extraction through manufacturing to use and disposal. http://www.greenseal.org/</p>
	<p>Sponsored by the U.S. Department of Energy and the U.S. Environmental Protection Agency, ENERGY STAR labels products such as computer CPUs, monitors, printers, copiers, and other devices that exceed US energy efficiency standards. ENERGY STAR also includes lighting, appliances, windows and many other products. http://www.energystar.gov/</p>

	<p>United States Environmental Protection Agency (EPA) develops and enforces regulations to implement environmental laws enacted by Congress. EPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states the responsibility for issuing permits and for monitoring and enforcing compliance. Where national standards are not met, EPA can issue sanctions and take other steps to assist the states in reaching the desired levels of environmental quality. The EPA provides Comprehensive Procurement Guidelines (CPG) updated every two years. Through the CPG, EPA designates items that must contain recycled materials when purchased with federal funds by federal, state, and local agencies. http://www.epa.gov/</p>
	<p>American Society for Testing and Materials (ASTM) is one of the largest voluntary standards development organizations in the world and a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevancy, ASTM International standards have an important role in the information infrastructure that guides design, manufacturing and trade in the global economy. Standards for over 12,000 items can be downloaded at: http://www.astm.org/</p>
	<p>Greenguard Environmental Institute (GEI) is an industry-independent, non-profit organization that oversees the GREENGUARD Certification Program. As an ANSI Authorized Standards Developer, GEI establishes acceptable indoor air standards for indoor products, environments, and buildings. http://www.greenguard.org/</p>

VI. PURCHASING

All City employees shall make every reasonable effort to reduce negative environmental impacts of purchased products and to purchase environmentally responsible products.

- A. The Purchasing Division and all departments will purchase products that are made with recycled, non-toxic, and/or recyclable materials and that minimize environmentally harmful processes and products in their production, as long as those items meet or exceed specifications and required quality levels set forth by the City, and meet cost guidelines set forth in this policy. The City will give special emphasis to products and materials made from post-consumer recycled materials. All purchases will be made in accordance with all local, state and federal purchasing requirements.
- B. When purchases are necessary, serious consideration shall be given to durable items, reusable items, items having minimal packaging, and items that are readily recycled when discarded.
- C. City departments are encouraged to use independent, third-party, environmental product or service label standards when writing specifications for, or procuring, materials, products, or services.
- D. City departments shall make every reasonable effort to procure chemicals and products that have low toxicity or are non-toxic, except for water treatment purposes. Products with the following attributes should be favored:
 1. Have the fewest adverse health effects such as skin, eye, nose, throat, and lung irritation from toxic compounds.

2. Contain the fewest chemicals that can enter the food chain to be consumed by aquatic plants and animals.
 3. Contain the fewest volatile organic compounds (VOC's) that can escape during product use.
 4. Avoid unnecessary additives such as fragrances and dyes.
 5. Reduce product packaging and use recovered/recoverable materials when packaging is necessary.
- E. Departments shall purchase and use rechargeable batteries where applicable and practicable.
- F. Departments shall purchase and use recycled paper (minimum 30% post-consumer recycled content) for all documents whenever possible.
- G. All departments shall be provided with a constant supply of recycled paper in a 30-100% post consumer range, with 100% post consumer recycled paper being the goal depending on availability and quality.
- H. All new business cards shall be printed on recycled card stock and shall display the recycling symbol.

V. ENERGY EFFICIENCY

- A. New and replacement equipment for lighting, heating, ventilation, refrigeration and air conditioning systems, water consuming fixtures and process equipment and all such components shall meet or exceed Federal Energy Management Program (FEMP) recommended levels, whenever practicable.
- B. All products purchased by the City of Concord and for which the U.S. EPA Energy Star certification is available shall meet Energy Star certification. When Energy Star certified products are not available, products shall meet or exceed the FEMP recommended levels. See <http://www1.eere.energy.gov/>.
- C. Solar thermal or on-demand water heaters shall be purchased whenever practicable, giving consideration to costs and benefits, including water conservation. Where renewable forms of energy are unavailable or not practicable, natural gas shall be considered in lieu of electricity for water heating.
- D. When replacing vehicles, the City shall purchase only the most energy-efficient models readily available that are suitable for each task. Where practicable, hybrids and alternative fuel vehicles will be purchased, provided a viable fueling source exists. Horsepower ratings for medium- and heavy-duty vehicles shall be the minimum needed to perform the vehicle's primary function within the confines of an urban environment in a relatively flat area. For non-emergency vehicles, this rating will be between 240 and 300 based upon the Gross Vehicle Weight Rating (GVWR). Preference will be given to OEMs that warranty their engines for a 20% bio-diesel blend.

VI. TRAINING

- A. All new employees will be made aware of this policy and the reasoning behind it during New Employee Orientation. Current employees will be fully informed about this policy through departmental staff meetings.
- B. A catalog of Environmentally Preferable Products made available through the Purchasing Division shall be available on-line to increase awareness of opportunities to purchase Environmentally Preferable Products.

VII. COST

Department heads are advised that the purchase of some Environmentally Responsible products may exceed the costs of comparable products. This factor alone should not determine whether an Environmentally Responsible product should be purchased, although it should be a factor in the decision. All purchases shall be handled in a fiscally responsible manner. Generally, for non-paper products, if the life-cycle cost of the environmentally responsible product does not exceed the cost of the alternative by more than 10%, and the product meets all necessary specifications, departments are urged to request that the Environmentally Responsible product be purchased, provided that all applicable legal requirements are met. Recycled paper should be purchased whenever possible, regardless of incremental cost.

VIII. PROGRAM EVALUATION

The Purchasing Manager, in collaboration with department directors shall evaluate the success of this Policy's implementation. The Purchasing Manager shall provide an annual report to the City Manager. The report shall relate progress in meeting the goals and objectives of this Policy and note any barriers encountered, recommendations for resolution, and or/description of assistance needed to continuously improve staff's ability to meet this Policy's objectives for the procurement of environmentally preferable products and services.

IX. VENDORS, CONTRACTORS AND GRANTEEES

- A. Vendors, contractors, and grantees are urged to comply with applicable sections of this policy for products and services provided to the City of Concord. In particular, vendors, contractors and grantees providing written materials to the City shall do so using both sides of the paper and on recycled paper meeting minimum standards of the US EPA Guidelines and labeled as such. In addition, the use of binders, plastic covers, and other items that impede the recycling process are especially discouraged. Whenever practicable, written materials shall be submitted electronically rather than in printed form.
- B. If the buyer making the selection from competitive bids or the requesting department seeks to purchase products that do not meet the sustainable procurement criteria in this Policy, the Purchasing Manager may request an explanation for why compliance is not practicable, e.g. the product is not technically practical, economically feasible, or available within the timeframe required.
- C. If a vendor, contractor, or grantee that is under contract with the City of Concord is no longer able to provide a product that meets this Sustainable Procurement Policy, the Purchasing Manager may request written documentation for why compliance is not practical.

- D. Vendors, contractors and grantees whose current combined contracts with the City total less than \$1,000 are exempt from this policy, but are encouraged to follow this policy to the greatest extent possible.

The Sustainable Procurement Policy is a part of the City's Purchasing Policy; and at no time does the Sustainable Procurement Policy supersede the Purchasing Policy.



Section 7.0

Solid Waste Cost Analysis

7.1 Introduction

This section provides financial information about the costs to provide solid waste management program serving the City of Concord. The cost for collection, disposal, waste reduction and related programs are established using the full-cost analysis form provided by NCDENR. The primary source of funding comes from the City of Concord's General Fund.

7.2 Description of Program Costs

- A Collection costs:** Collection costs are associated with Republic Services, the City's collection contractor through June 30, 2011 and City personnel who provide yard waste collection and business recycling services described previously. Waste Pro USA was selected as the service provider starting July 2011.
- B Disposal costs:** The franchise agreement with the BFI-CMS Landfill waives disposal fees for residential solid waste. The City is charged the \$2 per ton disposal excise tax created by the State of North Carolina.
- C Recycling costs:** Curbside recycling collection is provided by the collection contractor. Dumpster collection of OCC recycled from businesses within the City is provided by Signature Waste Services that has been replaced by Benfield Sanitation Services of Statesville, NC.
- D Yard Waste and Leaf Collection Costs:** City crews provide all yard waste collection services. Limb and bagged leaves and grass are collected throughout the years, while loose leaf collection is provided from late October through the end of January.
- E Mulching and Composting Costs:** All limbs, grass and leaves collected curbside are delivered to Wallace Farms. The City pays for grinding all limbs, but is not charged for composting the grindings, grass and leaves. Oversized materials too large for Wallace Farms to grind are delivered to the Highway 49 C&D Landfill for grinding and composting. Some woody waste is sold as boiler fuel or sold to other composting operators.

7.3 Description of Funding

A General Fund:

The General fund covers most expenses associated with solid waste management.

B Disposal Tax Reimbursement Fund:

Monies received from the State's Disposal Tax Fund are applied toward the operating budget program costs.

C Electronics Fund Disbursements:

All monies received from the Electronics fund are placed into a revenue fund and will be applied toward expenses associated with electronics collection, processing, or public education related to electronics recovery.

D Franchise Funds:

Franchise funds are used to pay for the curbside recycling program costs and \$35,000 per year is applied toward the Environmental Educator Specialist's salary. The remaining funds are budgeted toward other City needs

7.4 Department Budget:

The FY 2010-2011 Solid Waste Services Budget is presented in Table 7-1. Costs are developed for each of the requested program categories.

Table 7-1

Full Cost Analysis Solid Waste Program Costs

Concord, NC

Full Cost Analysis Budget Form							
Fiscal Year: <u>FY11</u>		Program Category					
Ann	SW Collection	Total MSW Budget	SW Collection	SW Disposal	SW Recycling	Other: Yard Waste & Leaf	Other: Composting, Misc
	# of Employees	34.18	1.1	N/A	2.19	25.21	5.68
1	Wages + Benefits of Employees (FTE)*	1,688,108	69,690	N/A	113,766	1,132,603	372,049
2	Local Government Administrative Support	138,044	47,343	N/A	15,863	74,838	0
3	Equipment Operations and Maintenance	219,140	3,498	N/A	2,771	178,180	34,691
4	General Operations	2,451,982	1,017,949	N/A	51,718	172,985	1,209,330
5	Educational Materials	866		N/A	866		
6	Cash Capital Outlays	98,106	11,220	N/A	11,220	75,666	0
7	Lease Payments	0	0	N/A	0	0	0
8	Contracted Services	2,837,192	2,746,681	N/A	751,316	92,484	
9	Professional Services	0	0	N/A	0	0	0
10	Insurance	12,578	638	N/A	638	10,206	1,096
11	Tipping Fees	0	0	N/A	0	0	0
12	Other: **			N/A		49,939	2,303
Cost of Large Capital Expenditures				N/A			
13	Annualized Large Capital Expenditures*	0	0	N/A	0	0	0
14	Annualized Landfill Development & Construction Co	0	0	N/A	0	0	0
15	Annualized Landfill Closure Costs*	0	0	N/A	0	0	0
16	Cost of Debt Service (loan & bond interest)	0	0	N/A	0	0	0
17	Total Annual Costs: (sum lines 1 – 16)	7,446,016	3,897,019	N/A	948,158	1,786,901	1,619,469
Revenues				N/A			
18	Sale of Recyclables (office paper, metals)	237,887	0	N/A	237,887	0	0
19	Equipment Salvage	0	0	N/A		0	0
20	Other Revenue Sources: _____	0	0	N/A	0	0	0
21	Total Annual Revenues: (sum line 18 – 20)	237,887	0	N/A	237,887	0	0
				N/A			
22	Net Annual Costs: (subtract line 21 from line 17)	7,208,129	3,897,019	N/A	710,271	1,786,901	1,619,469
				N/A			
Indicators of Efficiency				N/A			
23	Tons of Material Managed per Year	35,592	23,757	N/A	3,579	8,256	N/A
24	# Households or Clients Served	27,676	27,676	N/A	27,676	27,676	27,676
				N/A			
25	Total Cost per Ton: (divide line 22 by line 23)	203	164	N/A	198	216	N/A
26	Total Cost per Household: (divide line 22 by line 24)	260	141	N/A	26	65	59

**Please note that BFI-Commercial and corrugated cardboard recycling related expenses are not included in this worksheet

This Page Left Blank Intentionally

Section 8.0

Emergency & Disaster Debris Management and Animal Mortality

The City of Concord Debris Management Plan is a hazard-specific Appendix to the Concord Emergency Operations Plan. It identifies the actions required to plan for and respond to a natural debris-generating event. The plan is designed to identify departments and activities that are involved in debris operations to ensure a coordinated response. The plan was last updated and approved April 2011. The full Debris Management Plan is available for viewing at ConcordNC.gov/solidwaste.

The Debris Management Plan identifies the roles and responsibilities for the management staff and their organization, structure, and responsibilities. An integral part of the plan forecasts a design event and outlines a strategy for debris clearing and collection. Also, the plan identifies proposed sites for debris management. The City of Concord Solid Waste Services Department is the lead agency responsible for coordinating the permanent removal, storage, recycling, and disposal of debris deposited along or immediately adjacent to public rights-of-way in consultation with other supporting City departments, agencies, and through contracted private forces. The City of Concord utilizes the National Incident Management System (NIMS) to coordinate emergency preparedness and incident management. This system will be used to direct, control, and coordinate debris response and recovery operations.

The Solid Waste Department Director is the Debris Project Manager and Operations Section Chief for the debris cleanup and removal phase following any debris-generating event. The appropriate method is utilized to first estimate the amount of debris. Once the amount of debris has been estimated, the required number of pre-determined and pre-approved temporary storage sites and staging areas are mobilized. Also, a volume of waste is predicted by type of event. The two phases of the debris management process are clearing and collection. Areas are then prioritized for response operations. If necessary, emergency contracting and procurement methods are utilized depending on the resources needed.

8.1 Debris Staging Areas

Listed below are two debris staging sites that are pre-approved for emergencies:

Yard Waste & Disaster Debris Staging Locations			
Debris Staging Site 1	PIN 5539-36-6657 Warren C. Coleman Blvd Concord (Cabarrus) NC	Disaster Debris Staging Site	H. Allen Scott, Jr. (704) 920-5370
Debris Staging Site 2	PIN 4690-10-8518 Ivey Cline Rd Concord (Cabarrus) NC	Disaster Debris Staging Site	H. Allen Scott, Jr. (704) 920-5370

Below are lists of City of Concord Debris Management Contacts, local area utility contacts, regulatory agency, and hazardous waste, and recycling vendor contacts:

8.2 City of Concord Emergency Contacts

Name	Department	Function	Work Phone	Cell Phone
Allen Scott	Solid Waste Services	Debris Project Manager & Operations Section Chief	704-920-5370	704-791-7425 150*24*8742
Jim Sells	Fire and Life Safety	Emergency Management Coordinator	704-920-5528	980-521-0126 24*21058
Julie Waller	Risk Management	Risk Manager	704-920-5111	980-521-6063 150*29482*2
Peter Franzese	Administration	Public Information Officer	704-920-5210	704-506-0273
Albert Benshoff	Legal	City Attorney	704-920-5114	980-622-6440 ¹
Sid Talbert	Finance	Purchasing Manager	704-920-5441	
Joe Wilson	Transportation	Operations	704-920-5362	704-791-7429 24*8746
Bob Pate	Electric Systems	Operations	704-920-5301	704-425-8091
David Ratchford	Buildings and Grounds	Operations	704-920-5380	704-791-7434 24*8751
Pam Hinson	Finance	Administration	704-920-5522	704-577-2616
Shelia Almond	Finance	Administration	704-920-5444	
Shane Russ	Finance	Administration	704-920-5447	
Valerie Proper	Solid Waste Services	Administration	704-920-5361	
Christie Putnam	Water, Wastewater, & Stormwater Services	Support for Operations	704-920-5343	980-521-0790
Chris Linker	Communications	Support for Operations	704-920-5590	704-791-6584 24*5132
Bill Dusch	IT Contractor – Technologies Edge	Support for Operations	704-920-5293	
Sue Hyde	Engineering	Engineering/Planning	704-920-5401	704-791-3924 24*2250
Margaret Pearson	Planning & Neighborhood Services	Engineering/Planning	704-920-5151	980-521-0439 150*24*2197
Jeff Young	Sustainability Development	Recycling/Planning	704-920-5121	704-791-7422 24*8738
		Emergency Operations Center	704-920-5555	
		Joint Information Center (24-Hour Customer Care Call Center)	704-920-5555	

8.3 Local Area Utility and Emergency Contacts

Organization	Contact	Phone Number(s)	Cell Phone	After Hours Phone
			use only during regular business hours	
Cabarrus County Emergency Management	Bobby Smith	704-920-2143	N/A	704-920-3000
Water and Sewer Authority of Cabarrus County	Mark Lomax	704-786-1783		704-788-4164 RRWWTP
Charlotte-Mecklenburg Utilities		704-336-7600		
City of Kannapolis	Wilmer Melton	704-920-4200		
Town of Harrisburg		704-455-5614		
Town of Mount Pleasant	Adrian Cox	704-436-2990		
Duke Energy	Charles Waddell	1-800-769-3766	N/A	1-800-769-3766
Union Power Cooperative				1-800-922-6840
PSNC Energy (natural gas)	Kevin Johnson	704-723-4310	704-574-1014	1-877-776-2427
Piedmont Natural Gas (fka NCNG)	John Parsons	704-364-3120	N/A	1-800-752-7504
Plantation Pipeline		N/A	N/A	1-800-510-5678
Colonial Pipeline Company		704-392-8610	N/A	704-392-8610
AT&T	Luis Ortega	1-678-627-5335	N/A	1-800-252-1133
Bellsouth				
NEXTEL				
Sprint Embarq	Noel Campbell	N/A	N/A	1-888-723-8010
Time Warner Cable	Kevin Davis	704-378-2856	980-722-7050	704-378-2626 Option 5, 2, 1
Windstream Communications	Jim Foley	704-722-2000	N/A	1-800-800-6609
Aqua North Carolina		1-336-665-0817		
Carolina Water – Utilities Inc. (Zemosa Acres)		704-525-7990	N/A	704-525-7990
NC One Call Center	Jeff Bartley	1-336-855-5760	1-336-707-4528	1-800-632-4949
NC Department of Transportation	Ronn Posey	704-982-0104	N/A	704-986-3700 Stanly County
Amtrak Police		N/A	N/A	1-800-331-0008
CSX Railroad		N/A	N/A	1-800-232-0144
Norfolk Southern Railway	Richard Snyder	704-560-1449 704-376-3752	N/A	1-800-453-2530
North Carolina Railroad Company	Chuck Burnell	919-954-7601	N/A	N/A

8.4 Recycling Vendors and Contacts

	Company	Location	Phone Number	Notes
Glass	Asheboro Recycling	Asheboro, NC	800-948-1280	scrap metal, electronics, aluminum, copper, steel, cardboard, paper, plastic, glass beverage containers
	Waste Industries, Inc.	Supply, NC	910-754-2979	glass, metal, paper, plastic
	Waste Management, Inc.	Gastonia, NC	888-964-9730	glass, metal, paper, plastic & rubber
Metal	Asheboro Recycling	Asheboro, NC	800-948-1280	scrap metal, electronics, aluminum, copper, steel, cardboard, paper, plastic, glass beverage containers
	Bill Lemmons Battery Warehouse & Recycle Center, Inc.	Greensboro, NC	336-273-1145	aluminum, brass, copper, batteries, radiators
	Davis Enterprises, Inc.	Salisbury, NC	704-636-9821	scrap metal, steel
	Foils	Harrisburg, NC	704-455-5134	scrap metal
	Industrial Container Services	Matthews, NC	704-821-7636	steel drums
	Southern Metals Company	Charlotte, NC	704-394-3161	scrap metal (appliances, auto bodies, insulated wire, radiators), aluminum, brass, copper, steel
	Southern Resources	Charlotte, NC	704-342-1696	metal & plastic recycling service
	Umicore Marketing Services – USA	Raleigh, NC	919-874-7173	batteries, precious metals, electronic scraps, metal powders, oxides & chemicals, automotive catalysts, thin film products, zinc alloys & technical materials (includes automotive, aerospace, agriculture, food packaging, mining & communication electronics)
	Waste Industries, Inc.	Supply, NC	910-754-2979	glass, metal, paper, plastic
	Waste Management,	Gastonia, NC	888-964-9730	glass, metal, paper, plastic & rubber

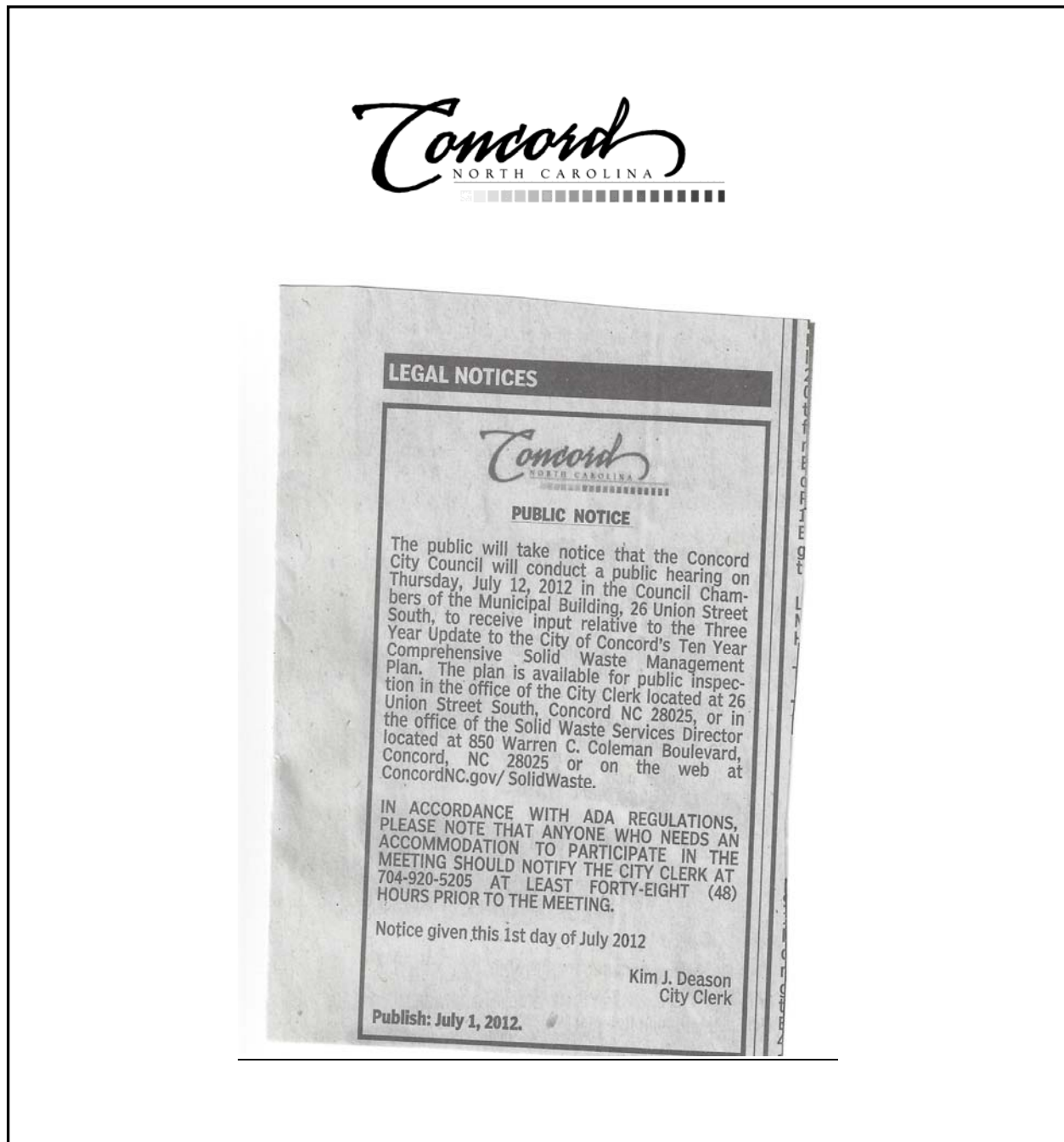
	Company	Location	Phone Number	Notes
	Inc.			recycling service
Wood/Paper	Asheboro Recycling	Asheboro, NC	800-948-1280	scrap metal, electronics, aluminum, copper, steel, cardboard, paper, plastic, glass beverage containers
	Aulander Hardwood	Ahoskie, NC	252-345-0058	pallets & skids
	Ross Skid Products, Inc.	Marion, NC	828-652-7450	pallets
	Sonoco Products Co.	Gastonia, NC	704-864-5406	paper
	Universal-Moorecraft Reel & Recycling, Inc.	Tarboro, NC	252-823-2510	wooden cable reels & plywood spools
	Waste Industries, Inc.	Supply, NC	910-754-2979	glass, metal, paper, plastic
	Waste Management, Inc.	Gastonia, NC	888-964-9730	glass, metal, paper, plastic & rubber recycling service
	Weyerhaeuser Co.	Charlotte, NC	704-334-5222	paper
Other	CBP Resources	Gastonia, NC	704-868-4573	grease

8.5 Hazardous Waste Contractors

Company	Location	Phone Number	Notes
A & D Environmental Services, Inc.	High Point	800-434-7750 336-434-7750	
Concord Industrial Service Company (CISCO)	Concord	Main: 704-788-1787 Malcolm Whitley's cell: 704-564-2273	does haz-mat for Charlotte FD & underground storage tank removal
Contaminant Control, Inc. (CCI)	Charlotte/Salisbury	888-624-6555 704-273-1500	
HEPACO, Inc.	Charlotte	800-888-7689 704-598-9782	
Evo Corporation	Winston-Salem	877-725-5844 336-725-5844	non-emergency contractor during regular office hours

9.0 Resolutions

9.1 Copy of Public Notice



Sunday, July 1, 2012

In the "Independent Tribune", as a block advertisement.

9.2 Resolution of Adoption

RESOLUTION ACCEPTING AND ENDORSING THE 2012 TEN YEAR COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN FOR THE CITY OF CONCORD, NORTH CAROLINA

WHEREAS, it is a priority of the City of Concord to protect human health and the environment through safe and effective management of municipal solid waste;

WHEREAS, the reduction of the amount and toxicity of the local waste stream is a goal of the City of Concord;

WHEREAS, equitable and efficient delivery of solid waste management services is an essential characteristic of the local solid waste management system;

WHEREAS, it is a goal of the City of Concord to maintain and improve its physical appearance and to reduce the adverse effects of illegal disposal and littering;

WHEREAS, the City of Concord recognizes its role in the encouragement of recycling markets by purchasing recycled products when it is feasible;

WHEREAS, involvement and education of the citizenry is critical to the establishment of an effective local solid waste program;

WHEREAS, the State of North Carolina has placed planning responsibility on local governments for the management of solid waste;

WHEREAS, NC General Statute 130A-309.09A(b) requires each unit of local government, either individually or in cooperation with other units of local government, to update the Ten Year Comprehensive Solid Waste Management Plan at least every three years;

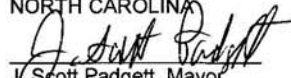
WHEREAS, the City of Concord Solid Waste Services Department has undertaken and completed a long-range planning effort to evaluate the appropriate technologies and strategies available to manage solid waste effectively;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CONCORD, NORTH CAROLINA:

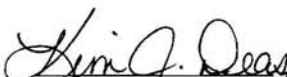
That the City of Concord's 2012 Ten Year Comprehensive Solid Waste Management Plan is accepted and endorsed and placed on file with the City Clerk this 12th day of July 2012.

Adopted this the 12th day of July 2012.

CITY COUNCIL
CITY OF CONCORD
NORTH CAROLINA


J. Scott Padgett, Mayor

ATTEST:


Kim J. Deason, City Clerk



Section 10.0

City of Concord Ordinance

10.1 Introduction

The City of Concord's municipal code includes the applicable rules and regulations governing the management and collection of solid waste within Chapter 30 and Chapter 46. The City of Concord Code is maintained via an external website, thus, there is no direct weblink. It can be accessed by going to concordnc.gov by clicking on the tabs from the main page for 'Government', 'City Ordinances', and then 'Click here for City Code'. In this section, a brief summary of the applicable codes is provided.

10.2 City of Concord Code of Ordinances, Chapter 30, Article IV Nuisances

A Summary

This chapter of the City of Concord ordinance governs rubbish, unhealthy substances, and weed control. It outlines the requirements for residents regarding maintenance of property, burning, cutting of weeds, littering on streets, ditches, and rights-of-way, and stagnant water. It defines nuisances as that which is detrimental, dangerous, or hazardous to health, safety, and welfare of the citizens. It also provides for the unlawfulness of breeding grounds or harbors for pests and rodents, burning of refuse, cutting of weeds, inhibiting the flow of storm water, and littering.

B Applicable Ordinance

Sec. 30-161. - Premises to be kept clean.

- (a) *[Nuisance declared]*. The following enumerated and described conditions are hereby found deemed and declared to constitute a detriment, danger and hazard to the health, safety, morals, and general welfare of the inhabitants of the city and are found, deemed and declared to be public nuisances wherever the same may exist and the creation, maintenance, or failure to abate any nuisances is hereby declared unlawful:
- (1) Any condition which is a breeding ground or harbor for mosquitoes or a breeding ground or harbor for rats or other pests; or
 - (2) Is a place of heavy growth of weeds or grasses over eight inches in height which abut any open street or which lie next to any adjoining property line which contains a structure; or is a place of heavy growth of weeds or grasses over eight inches in height which lies next to any occupied dwelling; provided that the nuisance defined by this subsection (b) shall be cleared and cut not less than three inches in height; or

- (3) Is a place of vines, shrubs, or other vegetation over eight inches in height (not including wooded areas) when:
 - a. Such vines or vegetation lie next to any adjoining property line and when such conditions are not located within a floodplain or not located on any slope that is steeper than three to one (horizontal to vertical), which has ground cover planted specifically for erosion purposes, and when such condition is causing a breeding ground for rodents and a hazard detrimental to public health; or
 - b. Such vines, shrubs, or vegetation are a focal point for any other nuisance enumerated in this Code; provided that the nuisance herein defined by this subsection (c)(2) shall be cleared and cut only when it is necessary to abate any other nuisance described in this section; or
- (4) Is a place of growth of poison sumac (*Rhus vernix*), poison ivy (*Rhus radicans*), or poison oak (*Rhus toxicodendron*) and other noxious vegetation; or
- (5) Is an open place of collection of stagnant water where insects tend to breed; or
- (6) Any concentration of combustible items such as mattresses, boxes, paper, automobile tires and tubes, garbage, trash, refuse, brush, old clothes, rags, or any other combustible materials or objects of a like nature; or
- (7) Any concentration of building materials including concrete, steel or masonry which are not suitable for building construction, alterations or repairs, and which are in open places; or
- (8) Is an open place of collection of garbage, food waste, animal waste, or any other rotten or putrescible matter of any kind; however, nothing in this subsection shall be construed to prevent the generally accepted use of a properly maintained compost pile or storage of animal manure being used as fertilizer for lawns and gardens and for other agricultural or horticultural purposes; or
- (9) Grass, trimmings less than 12 inches in length, and leaves or other yard waste or vegetative materials placed for pick up in any manner other than in untied clear plastic or untied paper biodegradable bags weighing less than 35 pounds each; or
- (10) Privies; or
- (11) Hides, dried or green; provided the same may be kept for sale in the city when thoroughly cured and odorless; or
- (12) Any household or office furniture, appliances, or other metal products of any kind or kept in open places; or
- (13) Any products which have jagged edges of metal or glass or areas of confinement which are kept in open places; or
- (14) Any open place of concentration of discarded bottles, cans or medical supplies; or
- (15) Any improper or inadequate drainage on private property which causes flooding, interferes with the use of, or endangers in any way the streets, sidewalks, parks or other city-owned property of any kind; provided, the notices required and powers conferred by this chapter by and on the police department in abating these types of nuisances shall be given and exercised by the department of stormwater services in

accordance with the provisions of chapter 60, article IV, stormwater quality control and management; or in the alternative, the powers shall be delegated to the city manager and designee(s); or

- (16) Any condition which blocks, hinders or obstructs, in any way the natural flow of branches, streams, creeks, surface waters, ditches or drains; or
- (17) Any collection of water for which no adequate natural drainage is provided and which is or is likely to become a nuisance and a menace to health; or
- (18) Any stormwater retention or impoundment device which is operating improperly; or
- (19) Any condition whereby any person owning or having the legal control of any land within the corporate limits of the city maintains or permits upon any such land any fence, sign, billboard, shrubbery, bush, tree, mailbox, or other object or combination of objects which obstructs the view of motorists using any street, private driveway, or approach to any street intersection adjacent to and abutting such land so as to constitute a traffic hazard as a condition dangerous to public safety upon any such street, private driveway, or at any such street intersection; or
- (20) Nuisance vehicle violation(s) as defined by chapter 14, article III, junk vehicles, of this Code; provided, the process for abating the nuisance vehicle shall be as provided for in article III, junk vehicles, of this Code;
- (21) Any other condition specifically declared to be a danger to the public health, safety, morals, and general welfare of inhabitants of the city and public nuisance by the division of code enforcement.

(b) Graffiti.

- (1) *Graffiti defined.* Graffiti means any inscription, work, writing, drawing, figure, mark of paint, ink, chalk, dye or other similar substance, etching, engraving or other defacement (collectively "defacement") on a public or private building, sidewalks, streets, structures, or places. Graffiti shall include drawings writings, markings or inscriptions regardless of the content or the nature of materials used in the commission of the act.
- (2) *Exemption.* Graffiti shall not include temporary, easily removable chalk or other water soluble markings on public or private sidewalks, streets or other paved surfaces which are used in connection with traditional children's activities such as drawings, bases for games, hopscotch or similar activities, nor shall it include temporary, easily removable chalk or other water soluble markings used in connection with any lawful business or public purpose activity.
- (3) *Graffiti prohibited.* It shall be unlawful for any person to write, paint inscribe scrawl, spray, place, draw or otherwise cause graffiti to be placed on any public or private building, structure, street, sidewalk, or any other real or personal property. Any person convicted of a violation of this paragraph shall be guilty of a misdemeanor and fined not less than \$250.00 for a first offense and \$500.00 for any second and subsequent offenses.

- (4) *Removal of graffiti.* It shall be unlawful for any person owning property, acting as manager or agent for the owner of property or in possession or control of property to fail to remove or effectively obscure any graffiti upon such property. Failure to remove or effectively obscure any graffiti upon such property within five days of the date of receipt of written notice of the graffiti shall result in civil penalties in the amount of \$100.00 per day until such time as the graffiti is completely removed or obscured.
- (5) *Restitution.* In addition to any other punishment imposed, the court shall order any person convicted of this section to make restitution to the victim for damages or losses suffered by the victim as a result of the offense. The terms, conditions and amount of restitution shall be determined by the court.
- (6) *Removal of graffiti by city.* Whenever the city becomes aware of the existence of graffiti on any property, the city is authorized to remove the graffiti as set forth in this section. The city shall give written notice to remove or effectively obscure the graffiti within five days of the date of the notice, to all property owners as shown in the Cabarrus County Registry and to any other person known or thought to be in possession or control of the property. Notice shall be given by personal service or certified mail. All notices shall state the procedure for appeal.
- (7) *Costs and liens.* If the property owner or person in control or possession of the property fails to remove or effectively obscure the graffiti within five days of the date of the notice, the city may enforce this section and may cause the graffiti to be removed or effectively obscured and charge the property owner or person in control or possession of the property for the expenses incurred by the city. The city may sue in a court of competent jurisdiction to recover all such expenses including but not limited to administrative costs, attorney's fees and all actual costs related to such enforcement. The city may, separately or in conjunction with any such lawsuit, file a lien in the public records for all such expenses and the lien shall bear interest from the date of filing.
- (8) *Appeal procedure.* Appeal of the code enforcement decision shall be made in writing by the property owner or person in possession or control of the property to the chief of police within five days of the date of the notice sent or posted by the city. The chief of police shall review the matter and issue a written decision within seven days of the date of receipt of the written request for appeal. Appeals from the decision of the chief of police shall be to the city council or its designee in writing by the property owner or person in control or possession of the property within five days of the date of mailing the decision of the chief of police to the appellant. If the party requesting the appeal requests a hearing, the hearing shall be scheduled at the next scheduled regular meeting of the city council. If city council or its designee determines that the graffiti must be removed, the city council or its designee may set a new deadline date for compliance or authorize the city to proceed to remove or obscure the graffiti. The

city shall not remove or obscure any graffiti during the pendency of an appeal. All written requests for appeal shall state the reasons for the appeal.

- (9) *Emergency removal.* If the city determines that any graffiti is a danger to the health, safety or welfare of the public and is unable to provide personal service after at least two attempts to do so, 48 hours after either (i) mailing of notice described in subsection (5) about by certified mail or (ii) posting notice on the building or structure in a conspicuous manner, the city may proceed to remove or cause the graffiti to be removed or obscured at its expense.

- (10) *Repair/restoration.* The city shall not be required to paint or repair any area on which graffiti was obscured or removed beyond that where the graffiti itself was located. The city shall not be required to restore the obscured area to its original condition, nor shall the city be required to match paint colors, finishes or textures in any manner whatsoever. However, if the city manager determines that painting or repair of a more extensive area is necessary in order to avoid an aesthetic disfigurement to the neighborhood or community, the city, or its designee is authorized to perform the necessary work. If more extensive work is performed, the property owner shall be liable only for the cost of that portion of work necessary to remove or obscure the graffiti.

(c) Notice; failure to comply; removal; cost.

- (1) If the authorized enforcement officer or designee shall have probable cause to expect a violation of this division, they shall have the right to enter on any premises within the city ordinance-making jurisdiction at any reasonable hour in order to determine if any premises or real property is in violation of this division.
- (2) If any person violates the provisions of subsection (a) of this section, it shall be the duty of the authorized enforcement officer to give written notice by personal delivery or by simultaneous mailing both by first class mail and by registered mail, return receipt requested, to the owner or person in possession of such premises that within five days from the receipt of such notice, all weeds, trash and other offensive animal or vegetable matter, must be removed from such premises. If the name and mailing address of the registered owner or person entitled to the possession of such premises cannot be ascertained in the exercise of reasonable diligence, the enforcement officer shall retain written record to show reasonable diligence.
- (3) If any owner or occupant fails to comply with the notice, the authorized enforcement officer shall proceed to have the offensive matter removed, and such owner or occupant shall be responsible to the city for the cost of removal, as specified in G.S. 160A-193. Such cost of removal shall constitute a lien upon such premises and shall be collected in the same manner as taxes upon real estate.
- (4) Annual notice to chronic violator. A chronic violator is a person who owns property whereupon, in the previous calendar year, the city issued a notice of violation at least three times due to violations of this section. The authorized enforcement officer may notify a property owner who is a chronic violator that, if the violator's property is found

to be in violation of this section, the city may, without further notice in the calendar year in which the notice is given, take action to remedy the violation and the expense of the action shall become a lien upon the property and shall be collected as unpaid taxes. The annual notice shall be served by registered or certified mail and regular mail simultaneously. If the owner of the property refuses to accept notice of the violation, or if the name or whereabouts of the owner of the property cannot be discovered through the exercise of due diligence, then the notice shall be posted on the property in question and published one time in a newspaper of general distribution in the city.

(Code 1987, §§ 10-2, 10-3; Ord. No. 05-81, § 2, 9-8-2005; Ord. No. 08-56, § 1, 6-12-2008; Ord. No. 08-75, § 1, 7-10-2008; Ord. No. 09-07, § 1, 2-12-2009; Ord. No. 10-15, § 2, 2-11-2010)

State law reference— *Municipal abatement of public health and public safety nuisances, G.S. 160A-193; Annual notice to chronic violators, G.S. 160A-200 and G.S. 160A-200.1; plant pests, G.S. 106-419 et seq.*

Sec. 30-162. - Burning regulated.

It shall be unlawful to burn or set fire to any garbage for the purpose of disposal. In addition, it shall be unlawful to burn any refuse for the purpose of disposal unless a permit therefor has been granted by the fire chief.

(Code 1987, § 10-4)

Sec. 30-163. - Schedule for cutting weeds; failure to comply.

- (a) It shall be unlawful for every owner or person of a property of a vacant lot within the corporate limits to fail to cut grass, weeds and other overgrowth vegetation or other noxious growth from the property. It shall be the duty of the owner to cut and remove grass, weeds and other overgrowth vegetation which is in excess of 12 inches in height. Such cutting or mowing shall reduce the height to not more the six inches.
 - (1) Vacant lots adjacent to the improved property, except as defined as heavily wooded, shall be cut in their entirety at least three times per year during the growing season, the first not later than May 15, the second no later than July 15 and the third no later than October 15.
 - (2) Heavily wooded lots are exempt from this section.
- (b) If any person violates the provisions of subsection (a) of this section, it shall be the duty of the zoning administrator or his designee to give written notice by registered mail, return receipt requested, to the owner of such vacant lot that within ten days from the mailing of such notice, all grass, weeds and other overgrowth vegetation which in excess of 12 inches in height must be cut.

- (c) If the owner fails to comply with the notice, the zoning administrator or designee shall proceed to have the weeds or noxious growth cut and the owner of such lot shall be responsible to the city for the cost of such cutting.
- (d) The cost of cleaning the lot by city personnel shall be a minimum as set from time to time and on file at the city clerk's office. Lots requiring more than one hour to mow shall be charged the minimum cost, plus an amount per hour as set from time to time and on file at the city clerk's office for each hour or its portion to mow the lot. In the alternative, the city, at its option, may arrange for a private contractor to clean the lot. The actual cost incurred by the city under such a contract agreement shall be charged to the owner of such a lot.
- (e) The city's finance department shall bill the property owner for the cost of the lot cleaning either by city personnel or private contractor, and such cost shall constitute a lien upon the premises and be collected in the same manner as taxes upon real estate, as specified in G.S. 160A-193. Further, such lien may be filed as a lis pendens in the office of the register of deeds of the county.

(Code 1987, § 10-5)

Sec. 30-164. - Reserved.

Editor's note—

Ord. No. 05-81, § 3, adopted Sept. 9, 2005, repealed § 30-164 in its entirety. Formerly, § 30-164 pertained to stagnant water; other unhealthy matter as enacted by Code 1987, § 10-6.

Sec. 30-165. - Reserved.

Editor's note—

Ord. No. 05-81, § 3, adopted Sept. 9, 2005, repealed § 30-165 in its entirety. Formerly, § 30-165 pertained to weeds and noxious growth near streets as enacted by Code 1987, § 10-7.

Sec. 30-166. - Throwing upon street and rights-of-way.

It shall be unlawful for any person to throw, deposit or otherwise cause to be thrown or deposited in or on the streets of the city or any rights-of-way that are a part of a street, any bottles, glass, construction debris, residential, commercial or industrial solid waste, white goods, hazardous waste, scrap tires, medical waste, land-clearing debris, or yard waste.

(Code 1987, § 10-9; Ord. No. 11-19, § 1, 3-10-2011)

Cross reference— *Solid waste, ch. 46; streets, sidewalks and other public places, ch. 50.*

Sec. 30-167. - Sweeping onto streets and ditches.

It shall be unlawful for any person to sweep or empty any store or office sweepings, any bottles, glass, construction debris, residential, commercial or industrial solid waste, white goods, hazardous waste, scrap tires, medical waste, land-clearing debris, or yard waste or other sweepings or cleanings of a yard or lot on any pavement or on any street, ditch, or waterway within the corporate limits of the city.

(Code 1987, § 10-10; Ord. No. 11-19, § 1, 3-10-2011)

Cross reference— *Streets, sidewalks and other public places, ch. 50.*

Sec. 30-168. - Responsibility of owner for standing stagnant water.

Every owner and every person in possession of any lake, pond, pool or other body of water maintained and used for manufacturing, commercial, recreation or any other purpose, shall keep the same free from stagnation and free from the accumulation therein of debris of every kind and in such condition at all times that the lake, pond, pool or other body of water will not be dangerous to public health.

- (a) It shall be unlawful to maintain or permit to remain on any premises any lake, pond, pool or other standing water which is wholly or partly stagnant, or which is liable to breed mosquitoes unless the water is treated and maintained in such manner as to avoid a risk to public health.
- (b) It shall be unlawful to allow water to pond continuously on any premises except where such ponding is allowed or caused for some useful purpose. Wherever water ponds on any premises, not for some useful purpose but in such a way as to constitute a nuisance, the owner and person in possession thereof shall either provide proper drainage therefor or shall fill up such portion of the premises as is covered by such water; provided that where the premises are filled up, natural drainage through the lot shall not be obstructed, provisions being made if necessary for drainage through such portion of such premises by means of underground waterways. In any case where it is impracticable by means of an open ditch or ditches to keep any premises drained in such way as to prevent the ponding of water and the creation of a menace to health, the owner and the person in possession of such premises shall sub drain such premises with drain tiles.
- (c) It shall be unlawful to use any stream or watercourse to carry off water from any kitchen sink, bathtub or privy, or to carry off any fluid of an offensive or dangerous nature. No water or refuse from any industrial, commercial or institutional process, including uncontaminated water used for heating or cooling, shall be discharged in any stream or watercourse by any person until such person has obtained the appropriate local, state and federal permits.

(Ord. No. 01-40, 9-13-2001; Ord. No. 11-19, § 1, 3-10-2011)

Editor's note—

Ord. No. 01-40, adopted September 13, 2001, enacted provisions intended for use as § 12-29. For purposes of classification, these provisions have been added herein as a new § 30-168 at the discretion of the editor.

Cross reference— Stagnant water; other unhealthy matter, § 30-164.

10.3 City of Concord, Code of Ordinances, Solid Waste, Chapter 46

A Summary

Chapter 46 outlines the definitions that apply to the accumulation, disposal, collection, and recycling of waste. This chapter governs the enforcement of the requirements for the proper and safe management of wastes generated within the city limits of Concord. Article II of this chapter outlines the services that are provided by the City of Concord, pre-collection standards, prohibited materials, carts and containers, collection practices, maintenance, and schedules.

The City of Concord provides for the collection of single-family residential solid waste and recyclables, bulky waste collection, pickup of dead animals, loose leaves, limbs, other yard waste, and construction and demolition debris.

For multi-family residential complexes, businesses, commercial enterprises, and industrial operations, the collection of cardboard and paper is provided for the purposes of recycling. Cart-type collection is available for commercial and industrial locations where bulk containers are unable to be housed. Loose-leaf collection is also available.

Rules governing the placement of refuse and recyclables and other wastes are indicated within this chapter. It addresses dangerous items, spilled materials, bulky items, metals, tires, e-waste, construction debris, and the like for appropriate collection or prohibited items.

Locations are described for the appropriate placement of all waste types are described, and the necessary scheduling of certain bulky items is indicated. Special conditions, charges, and requests may be allowed under certain circumstances.

B Applicable Ordinance

Sec. 46-1. - Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Access, indirect means vehicular access, by motor vehicle or commercial vehicle, originating from a public right-of-way to a dwelling unit and shared with another dwelling unit. Indirect access may be considered, but is not limited to, the following; a private street, shared driveway, common parking lot, or other common means of vehicular access.

Access, direct means direct, dedicated motor vehicle access from a public right-of-way to a dwelling unit.

Ashes means refuse resulting from the burning of wood, coal, coke and other combustible material.

Cart, rollout cart or approved rollout cart means a wheeled solid waste, and/or recyclable receptacle compatible with city garbage collection equipment, and approved by the solid waste services department. All city-provided carts remain the property of the City of Concord.

Botanical attraction means an arboretum, botanical garden, garden, and/or horticultural display not greater than three acres in size and open to the general public at no cost, owned by nonprofit organization to which donations are recognized as tax deductible by the Internal Revenue Service.

Bulk container means a metal container of not less than two cubic yards capacity nor larger than eight cubic yards capacity, constructed so as to be watertight but with drain plugs at the lowest point of the container to facilitate the drainage of any liquids that might accumulate in the container or from cleaning the container. Bulk containers shall have doors that open on the top and close automatically during emptying. Bulk containers shall be designed so that they can be emptied mechanically by specially designed trucks. When not in use, side doors shall be closed at all times. These containers may also be referred to as "dumpsters" in this chapter.

Bulky waste means any large household items that cannot be properly enclosed within the city-provided carts. Bulk items include, but are not limited to, all furniture, mattresses, box springs, white goods, stoves, refrigerators, water heaters, gas grills, wheelbarrows, bicycles, lawn equipment, carpet and carpet padding, and all other fixtures and appliances.

Business means a corporation, industry, company, retail, landlord, and/or other legal entity engaged in business in North Carolina, profit or otherwise.

Chronic violator is a householder who owns or legally occupies a property whereupon, in the previous calendar year, the city issued a notice of violation no less than three times due to violations of any section of this chapter.

Commercial establishment means any multifamily residential, retail, wholesale, institutional, charitable, religious, hotels, governmental or any other nonresidential establishment at which solid waste may be generated.

Commercial waste means any solid waste generated from commercial establishments as defined in this section above.

Computer equipment means any desktop central processing unit, laptop computer, video display unit used for a central processing unit, keyboards, mice, and all other peripheral or digital computer-related equipment. Computer equipment is not defined as follows: a printing device, such as a printer, a scanner, a combination print-scanner-fax machine, or any other device designed to produce digital or paper copies from a computer unit.

Construction or demolition debris means solid waste resulting solely from construction, reconstruction, remodeling, repair, or demolition operations to or on a paved walkway, driveway, signs or buildings, or all other related structures and fixtures. Construction or demolition debris does not include inert fragments, land-clearing remains, yard waste or pallets. Construction or demolition debris may be referred to in this chapter as "construction waste" or "demolition waste."

Contamination in rollout carts means placing any prohibited items into any approved rollout carts.

Electronic waste (E-waste) means all computers, televisions, entertainment devices, mobile telephones, and any other related residential consumer products or accessories. These items are also inclusive of any discarded electronic device which can be reused, refurbished, or recycled, according to G.S. 130A-309.130.

Garbage means all putrescible wastes including animal and vegetable matter, animal offal and carcasses, but excluding sewage and human wastes.

Hazardous waste means a solid waste, or combination of solid wastes, which because of its quality, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed. As defined in G.S. 130A-290.8(a), (b), hazardous waste includes, but is not limited to, motor oil, gasoline, liquid paint, and aerosol paint cans.

Household trash or *trash* means any waste accumulation of paper, sweepings, dust, rags, discarded toys and small appliances, or other material or similar kinds of other than garbage which are usually attendant to housekeeping. Discarded glass bottles, whether in their original condition or ruptured, shall be properly wrapped or containerized to prevent injury to collection personnel.

Householder means the property owner or tenant having legal possession of a dwelling unit.

Industrial solid waste means anything other than garbage, such as sawdust, shavings, feathers, cartons, boxes, glass, paper, wood, textiles, plastic, chemicals, and any other debris materials from processing plants, factories or manufacturing operations.

Inert debris means solid waste which consists solely of material that is virtually inert and that is likely to retain its physical and chemical structure under expected conditions of disposal, such as soil, rock, concrete, brick, block, gravel, and similar materials.

Land-clearing debris means solid waste, including inert debris, which is generated solely from clearing and grubbing activities on real property.

Littering means the act of causing objects to be strewn or scattered about.

Litter means any object, such as solid waste materials, industrial, household trash, business trash, building materials, scrap materials and hazardous waste that is strewn or scattered about. Litter includes materials from the collection truck hopper that fall to the ground as the rollout carts are emptied. Litter that results from the householder's failure to secure household garbage and refuse in tied plastic bags within the approved rollout cart is the responsibility of the householder.

Medical waste means any solid waste which is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, but does not include any hazardous waste identified or listed pursuant to this article, radioactive waste, household waste as defined in 40 Code of Federal Regulations § 261.4(b)(1) in effect on 1 July 1989, or those substances excluded from the definition of "solid waste" in this section. Medical waste shall have the same definition as G.S. 130A-290.17(a).

Multifamily residence means any apartment or group of apartments, townhomes, or condominiums, having six dwelling units or more. Developments including duplexes and/or other multiple dwelling units that take indirect access from a public right-of-way and collectively exceed five dwelling units total are classified as a commercial multifamily development for waste disposal purposes regardless of the number of parcels occupied, the configuration of property or zoning lines, or the number of owners.

Radioactive waste means any waste that emits ionizing radiation.

Recyclable material means those materials which are capable of being recycled and which would otherwise be processed or disposed of as solid waste. Recyclable materials include, but are not limited to, newspaper and accompanying inserts, magazines, chipboard, corrugated cardboard, mixed and office paper (excluding sanitary products), telephone books, all plastic bottles and containers (#1 through #7, excluding Styrofoam), steel cans, aluminum cans, glass containers, and any other materials the city determines to be recyclable.

Refuse means all nonputrescible waste.

Roll-on/roll-off containers means a metal container of more than eight cubic yards capacity, constructed so as to be watertight but with drain plugs at the lowest point of the container to facilitate the drainage of any liquids that might accumulate in the container or from cleaning the container. Such containers may have lids or doors.

Single-family residences means any detached dwellings designed, permitted and built as a single-family dwelling unit, mobile home, or duplex, triplex, or quadraplex, apartment or group of apartments, or townhomes having less than six dwelling units, or any number of condominiums.

Solid waste means all discarded materials including, but not limited to, garbage, household trash, yard trash, building material, ashes, industrial waste, refuse, bulky waste, dead animals, medical waste, etc., from dwelling units. No liquids shall be considered as solid waste.

Television means any electronic device that contains a tuner that locks on to a selected carrier frequency and is capable of receiving and displaying a digital image on a viewable screen of nine inches or larger whose display is based on cathode ray tube (CRT), plasma, liquid crystal (LCD), digital light processing (DLP), liquid crystal on silicon (LCOS), silicon crystal reflective display (SXRD), light emitting diode (LED), or any similar technology marketed and intended for use by consumers, including internet-ready TVs.

Waste tires means any worn out or discarded vehicle tires, as once operated on an automobile, truck, passenger van, motorcycle, golf cart or all-terrain vehicle. Tires as previously used on commercial vehicles, construction equipment, or tractors are excluded from this definition.

White goods means all discarded refrigerators, ranges, water heaters, freezers, unit air conditioners, washing machines, dishwashers, clothes dryers, and other similar domestic large appliances. Commercial large appliances are not included in this definition.

Wooden pallet means a wooden object consisting of a flat or horizontal deck or platform supported by structural components that is used as a base for assembling, stacking, handling, and transporting goods.

Yard waste means grass, weeds, leaves, tree trimmings, plants, shrubbery pruning and other similar vegetative materials that are generated in the maintenance of yards and gardens.

(Code 1987, § 10-1; Ord. No. 00-97, 12-14-2000; Ord. No. 05-64, § 2, 7-14-2005; Ord. No. 07-25, § 1, 4-12-2007; Ord. No. 11-20, § 1, 3-10-2011)

Cross reference— Definitions generally, § 1-2.

Sec. 46-2. - Compliance, enforcement, removal costs, and civil penalties.

(a) Notice; failure to comply; removal; cost.

- (1) Failing to comply with any and/or all conditions or prohibitions found in this chapter are hereby found, deemed, and declared to constitute a detriment, danger and hazard to the health, safety, morals, and general welfare of the inhabitants of the city and are found, deemed and declared to be public nuisances wherever the same may exist and the creation, maintenance, or failure to abate any nuisances is hereby declared unlawful.
- (2) If the authorized enforcement officer or designee shall have probable cause to expect a violation of any section or subsection of this chapter, they shall have the right to enter any premises, not including dwelling units, within the city's jurisdiction at any reasonable time in order to determine if any premises or real property is in violation of this chapter.
- (3) If any person violates the provisions of this chapter, it shall be the duty of the authorized enforcement officer to provide written notice by personal delivery or by simultaneous mailing, both by first class mail and by registered mail, return receipt requested, to the property owner(s) (and householder(s) if not the same person as the owner) that within 48 hours from the receipt of such notice, all violations must be removed from such premises. If the name and mailing address of the registered owner or householder entitled to the possession of such premises cannot be ascertained in the exercise of reasonable diligence, the enforcement officer shall retain written record to show such diligence.
- (4) Penalties.
 - a. Violations of this chapter are subject to a \$100.00 civil penalty if such violation is not corrected within 48 hours after receiving notification from the solid waste services department.
 - b. An additional delinquency charge as set from time to time in the annual adopted budget ordinance and on file in the city clerk's office for nonpayment shall be paid if such penalty is not paid within 30 days of its issuance.

- (5) If any owner or occupant fails to comply with the notice, the authorized enforcement officer shall proceed to have the offensive matter removed or the violation otherwise corrected, and such owner or occupant shall be responsible to the city for the cost of removal, as specified in G.S. 160A-193 and as specified in the then-current fees, rates and charges schedule adopted as part of the City of Concord annual operating budget. Such cost of removal shall constitute a lien upon such premises and shall be collected in the same manner as taxes upon real estate.
 - (6) The city may sue in a court of competent jurisdiction to recover all such expenses including, but not limited to, penalties, delinquency charges, administrative costs, attorney's fees and all actual costs related to such enforcement. The city may, separately or in conjunction with any such lawsuit, file a lien in the public records for all such expenses and the lien shall bear interest from the date of filing.
- (b) Appeal procedure.
- (1) Appeal of a code enforcement officer's decision shall be made in writing by the property owner or householder to the solid waste services director (or his or her designee) within three days of the date of the notice sent or posted by the city. The solid waste services director shall review the matter and issue a written decision within three days of the date of receipt of the written request for appeal or following the hearing.
 - (2) Appeals of the director's decision shall be to the city manager or his/her designee in writing by the property owner or the householder within three days of the date of mailing the decision of the director to the appellant. The city manager or his/her designee shall review the matter and issue a written decision within seven days of the date of receipt of the written request for appeal or following the hearing.
 - (3) If the party requesting the appeal of the code enforcement decision or the solid waste director decision requests a hearing, the hearing shall be scheduled within three days upon receipt of the written request if before the solid waste service director, or within 30 days if before the city manager or his/her designee. All written requests for appeal shall state the reasons for the appeal.
- (c) *Emergency removal.* If the city manager or his designee, determines that the violation is a danger to the health, safety or welfare of the public and is unable to provide personal service after at least two attempts to do so, 48 hours after either:
- (1) Mailing of notice described in subsection (b)(2) about by certified mail, or
 - (2) Posting notice on the building or structure in a conspicuous manner, after which time the city may proceed to remove the offensive material at its expense.
- (d) *Annual notice to chronic violator.* If in the previous calendar year, the city issued a notice of violation no less than three times due to violations of any section or subsection of this chapter, upon a single violation of this chapter in the following calendar year, an authorized enforcement officer may notify a property owner that the city may, without further notice (in the calendar year in which the notice is given), take action to remedy the violation. The expense of the action shall become a lien upon the property and shall

be collected as unpaid taxes. The annual notice shall be served by registered or certified mail and regular mail simultaneously. If the owner of the property refuses to accept notice of the violation(s) or if the name or whereabouts of the owner of the property cannot be discovered through the exercise of due diligence, then the notice shall be posted on the property in question and published one time in a newspaper of general distribution in the city.

(Ord. No. 11-20, § 1, 3-10-2011)

Secs. 46-3—46-30. - Reserved.

Sec. 46-31. - Compliance in newly annexed areas.

Persons in newly annexed areas shall comply with the provisions of this chapter immediately upon the effective date of the annexation ordinance.

(Code 1987, § 10-31; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 2, 4-12-2007)

Sec. 46-32. - Services provided by city.

The city shall provide the following services only to single-family residences unless otherwise provided in this chapter.

- (a) *Single-family residential solid waste.* The collection of solid waste, including garbage, trash and household waste, from the carts provided by the city. Residential trash includes ashes, bulky waste and yard waste, securely bound or placed in carts and both placed at the edge of the street or sidewalk. Off-street trash collection is available at a charge specified by the city.
- (b) *Residential recyclables.* The collection of approved recyclable materials prepared in accordance with city standards before placement into the carts.
- (c) *Bulky waste collection.* Bulky waste items are large items that do not fit into the carts. Excess bags of garbage that would normally be placed into the approved rollout garbage cart are not categorized as bulky waste. For limitations on bulky waste collection see [section 46-33\(a\)\(7\)](#) below.
- (d) *Dead animals.* Animals weighing less than 100 pounds will be removed by the city upon request. Such animals must be in a bag and placed by the street for pickup. Animals weighing 100 pounds or more shall be required to be removed and disposed of by their owners.
- (e) *Loose-leaf collection.* Leaf pick-up machines will begin operation in the fall of the year on a neighborhood collection schedule to be published annually. Any leaves to be picked up after the end of loose-leaf season shall be put in untied clear plastic or paper

biodegradable bags or some type of reusable owner-provided container to be picked up by the solid waste services department.

(f) *Multifamily residential, business, commercial and industrial.*

- (1) Business, commercial and industrial (but not multifamily residential) collection shall include the collection of corrugated cardboard recycling and office paper recycling from cardboard-only carts provided by the city, to be placed at accessible locations.
- (2) Rollout cart collection of garbage, refuse, and recycling in a fee-based program provided to multifamily residences and small businesses located where bulk waste containers are not available or physically cannot be serviced, and/or where the waste generated is too small to support a bulk waste container. The services shall be identical to single-family residential services except businesses will not receive any bulk waste collection or yard waste collection services. The number of recycling carts shall be limited to a number determined by the solid waste services director or his/her designee adequate to serve the business but shall not exceed a maximum number equal to the number of garbage carts under subscription. Recycling shall remain available as long as the business continues to participate in the city rollout business program under this subsection.
- (3) Loose-leaf collection will be provided to multifamily residences, businesses, commercial, and industrial properties located within residential neighborhoods.
- (4) No other garbage or yard waste collection services are provided to multifamily and nonresidential properties, except as provided in this subsection (f).

(g) *Construction or demolition debris.* Collection of residential construction debris resulting only from householder repairs or renovations, and shall include items described in [section 46-1](#), but shall not include materials containing asbestos or items prohibited in [section 46-34](#). The quantity of construction debris shall be limited to a maximum of four cubic yards.

(h) *Botanical attraction's yard waste and waste vegetation.* The city will collect and dispose of yard waste and/or waste vegetation produced by botanical attractions. Placement and storage of these materials must comply with standards established by the city.

(Code 1987, § 10-32; Ord. No. 00-97, 12-14-2000; Ord. No. 05-64, § 1, 7-14-2005; Ord. No. 06-41, § 1, 5-11-2006; Ord. No. 07-25, § 2, 4-12-2007; Ord. No. 09-89, § 1, 9-10-2009; Ord. No. 11-20, § 2, 3-10-2011)

Sec. 46-33. - Precollection practices and public nuisance.

(a) *Precollection practices.* The following practices must be performed by the property owner or resident, if other than the owner, prior to collection by the city or its designee:

- (1) *Advance scheduling required for certain items.* All items too large to fit into carts shall require advanced scheduling a minimum of two work days prior to collection, except for flattened cardboard boxes as described in subsection (8) below. Advanced scheduling applies to subsection (7) bulky waste, white goods, subsection (9) scrap tires, subsection (10) scrap metal, and subsection (11) electronic waste, as

described below in the numbered paragraphs. Construction debris may require a roll-on/roll-off container and scheduling as provided in subsection (12) below. Yard waste does not require advance scheduling but shall be prepared as provided in subsections (13) and (14) below

- (2) *Garbage and trash.* All garbage shall be drained of all liquid and enclosed in securely tied plastic bags prior to being placed in carts. The maximum weight of the full cart, including the weight of the cart, is 220 pounds.
- (3) *Spilled materials.* All materials shall be secured by tying in bags.
- (4) *Dangerous refuse items.* All dangerous refuse items and all waste material of any injurious nature such as broken glass, light bulbs, and sharp pieces of metal, shall be securely wrapped to prevent injury to collection personnel. Placing these items in paper or plastic bags shall not be considered adequate protection.
- (5) *Hypodermic instruments.* It shall be unlawful for any person to dispose of or discard any hypodermic syringe, hypodermic needle or any instrument or device for making hypodermic injections before first breaking, disassembling, destroying or otherwise rendering such device inoperable and incapable of reuse and safeguarding the disposal thereof by placing such device in either a milk jug, coffee can with a lid or such similar containers so as to avoid the possibility of causing injury to the collection personnel.
- (6) *Contamination in rollout carts.* It shall be unlawful to place any prohibited items into the approved garbage or recycling rollout carts.
- (7) *Bulky items.* Household furniture, mattresses, vacuum cleaners, white goods, scrap metal, electronic waste and other bulky items shall be placed at curbside for collection.
 - a. A combined volume of bulky waste and a maximum of four cubic yards of construction or demolition debris not to exceed ten cubic yards may be placed curbside for collection without cost. Placing a volume of ten cubic yards or greater of bulky waste at the curb for collection is prohibited.
 - b. Bulky waste volumes exceeding 10 cubic yards must be disposed in a roll-off container with a minimum capacity of 20 cubic yards and rented at the householder's expense.
- (8) *Recyclables.* All recyclables shall be drained of all liquids and rinsed to remove food residuals before being placed into the approved rollout cart. All recyclables shall be placed into the cart; sorting or separation is no longer required. Large cardboard boxes may be flattened and placed next to the approved recycling rollout cart.
 - a. Residents receiving backyard collection service shall place their recyclables into clear plastic bags before placing the bags into the approved rollout cart.
 - b. Contamination of recyclables by placing garbage, trash, or materials not approved for recycling into the recycling cart is prohibited. Contamination of the recycling cart shall be subject to code enforcement action and possible removal of the recycling cart.

- (9) *Scrap tires.* A maximum of four motor vehicle tires with rims removed are collected per week from residences when placed curbside. Advanced scheduling is required.
 - (10) *Scrap metal.* Larger metal items such as bicycles, lawn and garden equipment powered by internal combustion engines with oil and gasoline removed, swing sets disassembled, grills with propane tanks removed, and similar items collected curbside. Advanced scheduling is required.
 - (11) *Electronic waste.* Computers, televisions, stereos, video game systems, and other consumer products with circuit boards will be collected curbside and recycled. Advanced scheduling is required.
 - (12) *Construction and demolition debris.* The quantity of construction debris placed at the curb for collection shall not exceed four cubic yards. Such waste shall be placed at the edge of the street or sidewalk, but shall not be placed on or obstruct the street or sidewalk.
 - a. Nails shall be removed or bent flush with surface of wood to protect collectors and pedestrians from injury. Loose material such as drywall, insulation, etc., shall be placed in clear plastic bags or in open cardboard boxes. In all cases materials shall be secured to prevent windblown scattering of litter. Individual bags or boxes shall not weigh more than 35 pounds.
 - b. A combined volume of bulky waste, including a maximum of four cubic yards construction or demolition debris, up to ten cubic yards may be placed curbside for collection without cost. A volume placed at the curb exceeding the established limits is prohibited. Advanced scheduling is required.
 - c. Construction debris greater than four cubic yards in volume must be placed in a roll-off container for disposal. See [section 46-35](#) for procedure to obtain roll-off containers at reduced prices through the city.
 - (13) *Yard waste—Grass, trimmings, and leaves.* Grass, trimmings less than 12 inches in length, and leaves shall be placed in untied clear plastic or untied paper biodegradable bags weighing less than 35 pounds each. Bagged materials are collected weekly on the scheduled waste collection day. Unbagged loose leaves are collected according to the published loose-leaf collection schedule. Grass, trimmings and leaves may also be placed in personal containers not to exceed 42 gallons in capacity or weigh more than 35 pounds each. Personal containers must be clearly labeled "Yard Waste Only." Personal containers are placed curbside at the customer's risk, and the city is not responsible for damage or theft.
 - (14) *Yard waste—Limbs.* Limbs must be less than 12 inches in diameter, cut to a length of six feet or less, and stacked neatly at the curb so as not to obstruct the sidewalk or the roadway nor create an unsafe condition to the traveling public.
- (b) *Placement and storage.* Storage and curbside placement of all waste materials must comply with the following standards:
- (1) Approved rollout carts shall be placed as near the edge of the street as practical for the scheduled day of collection. Carts shall not be curbside before 5:00 p.m. of the

evening prior to collection day and shall be removed no later than 9:00 p.m. the evening of collection day.

- (2) Bulky waste shall not be placed curbside before 5:00 p.m. of the evening prior to collection day or after collections are made on collection day.
- (3) Approved rollout carts shall be positioned with the wheels facing toward the residence (or principal building) and spaced a minimum of two feet from other carts, mailboxes, telephone poles, fire hydrants, parked automobiles, or any other physical barrier that may interfere with the automated collection of the carts.
- (4) Household garbage, trash and recyclables not properly placed in the cart are prohibited and will not be collected.
- (5) Carts, bulky waste, and yard waste shall not be placed on sidewalks, streets or alleys in such a manner as to obstruct the free flow of pedestrian or vehicular traffic and shall not be placed in front of neighboring property.
- (6) Backyard garbage and recycling service to elderly, disabled, or handicapped persons will be provided when there is no one in residence in the household physically capable of transporting the approved rollout cart curbside. A statement signed by a physician currently treating the householder may be required to substantiate the existence of disability. A special inconspicuous identifying marker will be placed in the yard of residents requiring such service. All garbage and trash must be placed into tied plastic bags before placement into approved rollout cart. All recyclables must be placed into tied clear plastic bags before placement into recycling rollout carts.

(Code 1987, § 10-33; Ord. No. 00-97, 12-14-2000; Ord. No. 06-41, § 2, 5-11-2006; Ord. No. 07-25, § 2, 4-12-2007; Ord. No. 11-20, § 2, 3-10-2011)

Sec. 46-34. - Prohibited materials not collected by city and waste handling prohibitions.

- (a) *[Prohibited materials.]* The following materials are prohibited from placement in carts or curbside for collection:
- (1) Items placed outside of approved rollout carts or in personal containers, except as provided above.
 - (2) Liquid waste.
 - (3) Hazardous waste or hazardous materials. Examples of hazardous materials includes, but is not limited to, oil-based paints, solvents, pesticides, drain cleaner, used cooking oil, used motor oil, antifreeze, gasoline, kerosene or any flammable or explosive material.
 - (4) Radioactive waste.
 - (5) Lot-clearing debris or anything from vacant lots except for up to two cubic yards of yard waste from vacant lots located in neighborhoods where at least 51 percent of

the platted lots in a neighborhood or subdivision are developed in single-family uses. Yard waste preparation and placement for pick-up must be consistent with standards established by the city.

- (6) Inert debris, tree trunks, tree stumps, tree limbs of more than six feet in length or greater than 12 inches in diameter, or other heavy objects.
 - (7) Construction debris containing asbestos.
 - (8) Construction debris exceeding four cubic yards, lot clearings or tree trimmings from houses or other structures under construction, recently completed, or recently demolished.
 - (9) Yard waste placed in tied bags of any kind, nonclear plastic bags, nonbiodegradable paper bags or individual bags weighing more than 35 pounds (see also subsection (b) below).
 - (10) Oxygen tanks and other medical equipment; propane tanks; all oil tanks used for household purposes; parts of campers, boats, camper shells, trailers; automotive parts, including, but not limited to, motors, transmissions, doors, fenders, car seats or batteries from a residentially used premise, etc. shall not be collected by the city forces.
 - (11) Business, commercial and industrial solid waste except: (i) corrugated cardboard and office paper recycling, or office waste and recycling using city-provided fee-based rollout cart services; and (ii) multifamily, business, commercial or industrial solid waste approved as provided in [section 46-32\(f\)](#). All other collection of commercial waste shall be arranged for and paid for by commercial waste generators.
 - (12) Disposal in landfills, prohibited items. The following items are prohibited from disposal in North Carolina landfills by state or federal law and accordingly prohibited from approved waste containers or pick-up: oyster shells; used motor oil; lead-acid batteries; aluminum cans; whole waste tires; ABC beverage containers; yard trash; antifreeze; appliances; fluorescent light tubes and compact fluorescent light bulbs and smoke detectors. Effective October 1, 2009, used oil filters, recyclable plastic bottles (excluding motor oil bottles), and wooden pallets shall be prohibited. Effective July 1, 2011, televisions and computer equipment shall be prohibited. Any items prohibited from landfills by the State in the future shall also be prohibited from collection as household waste.
- (b) *Yard waste generated by other than property owner or householder.* When a commercial tree service, arborist, or forester trims trees, tree limbs, or shrubs, it is the commercial operator's responsibility to dispose of trees, tree limbs and trimmings they generate. The city will collect these tree trimmings at the charge in effect at the time.
- (c) *All waste material shall remain at the property of origin to await collection.* It shall be illegal for any person to remove any waste material, including solid waste and yard waste from the property where it originated to another property and place it at curbside to await collection.

- (d) *Transporting waste into the city is prohibited.* It shall be illegal for any person to bring solid waste into the city for the city's solid waste personnel and trucks to collect.

(Code 1987, § 10-34; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 2, 4-12-2007; Ord. No. 11-20, § 2, 3-10-2011)

Sec. 46-35. - Special conditions; charges and requests.

- (a) *Availability for special collections.* If sufficient manpower and equipment are available, city personnel are authorized to make such special collections provided the person making the request agrees to pay for the labor and equipment used at the rate specified by the city. Off-street collections are also available under the conditions of this section. All such requests for special collections shall be made to the office of the solid waste services director.
- (b) *Roll-on/roll-off container requirements and availability.* Roll-on/roll-off containers are required to dispose of materials exceeding the limits established for curb side collection. Such containers must be provided at the householder's expense. Property owners are required to load waste material into these containers in accordance with policies established by the solid waste services department, the department of motor vehicles, and the landfill.
- (1) Twenty cubic yard roll-off containers are available for delivery and collection to residential properties at a reduced fee by contacting the customer care center or customer service desk.
- (2) Advanced payment of fees and charges is required at the time service is scheduled. The rental rates are posted on the city website in the fees, rates and charges schedule adopted annually by city council when they adopt the annual city budget.
- (3) Service must be scheduled and is subject to availability.

(Code 1987, § 10-35; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 2, 4-12-2007; Ord. No. 11-20, § 2, 3-10-2011)

Sec. 46-36. - Access to carts.

Pedestrian routes for collectors to access private property in order to provide backyard collection to persons who qualify to receive backyard service of residential solid waste and recycling collection shall be improved and maintained to standards prescribed by the solid waste services director for the safety of solid waste collectors and shall have at all points at least six feet of vertical clearance and four feet of horizontal clearance. Access routes shall not be obstructed by gates, steps, bicycles or motor vehicles, and service will not be provided when animals interfere with collectors.

(Code 1987, § 10-36; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 2, 4-12-2007; Ord. No. 09-89, § 1, 9-10-2009; Ord. No. 11-20, § 2, 3-10-2011)

Sec. 46-37. - Collection practices and schedule.

- (a) All solid waste and recyclables must be placed in the city-provided carts and recycle bins. Placement of solid waste or recyclables at the curb in personal containers, in bags or loose outside of carts is prohibited. Personal containers are not acceptable and will not be emptied. Additional carts are available from the city for a monthly fee established by the city council in the adopted fees, rates, and charges schedule.
- (b) Solid waste, bulky waste, and yard waste will be collected once weekly. Residential recyclables will be collected once every other week.
- (c) Nonresidential establishments receiving city-provided fee-based cart service will receive residential garbage and recycling services but are not eligible for bulky collection or yard waste collection services.
- (d) Commercial cardboard and office paper recycling will be collected weekly.
- (e) The exact schedule of collection for each area of the city and for each type of collection is maintained in the office of the director of solid waste services.
- (f) The city only provides residential garbage and recycling collection trucks, yard waste, and miscellaneous trash trucks for solid waste. Roll-off or compaction collection is provided by private contractors, at the owner's expense.
- (g) Spillage from approved roll-out carts or other approved collection device, place or method not caused by collection crews shall be cleaned up immediately after such spillage or overflow by the householder. In the absence of the householder, the contractor shall clean up the spilled material and report the address to the solid waste service director and city code enforcement personnel for investigation. Spilled solid waste materials caused by city collection crews shall be cleaned up immediately by the city's crew or its contractor.

(Code 1987, § 10-37; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 2, 4-12-2007; Ord. No. 11-20, § 2, 3-10-2011)

Secs. 46-38—46-70. - Reserved.

Sec. 46-71. - Container requirements and specifications.

- (a) All garbage and refuse shall be collected and shall be placed in carts or bulk waste containers as required by this article, and it shall be unlawful for any person to permit garbage or refuse to accumulate or remain on any premises longer than is reasonably necessary to remove and deposit it in approved carts or containers as required in this article. It shall also be unlawful for any person to throw, place or deposit any garbage or refuse of any kind on any public or private property.

- (b) Each single-family residential building shall be provided approved rollout garbage carts by the city. Approved rollout carts are the property of the City of Concord. Approved rollout carts are provided and assigned to householders for their health, safety, convenience and general welfare. Carts that are damaged, destroyed or stolen, abused, neglected, or improperly used by the householders shall be replaced by the city at the expense of the householder. Carts which are damaged in the course of normal and reasonable usage by the householder shall be repaired or replaced by the city at no charge. The householder shall notify the solid waste services department if a cart is missing or damaged. The solid waste services department will dispatch a representative to confer with the householder, ascertain the facts and circumstances of the loss or damage, and determine responsibility. The carts shall not be damaged, destroyed, defaced or removed from the assigned premises. Markings and identification devices on the carts, except as placed or specifically permitted by the city, are expressly prohibited and shall be regarded as damage to the carts. Business enterprises approved for fee-based rollout cart service shall be subject to the same requirements as residential customers.
- (c) Residents may request up to two additional carts if one cart is not sufficient to hold the accumulated garbage/trash between collections on a regular basis. These additional carts will be provided for the monthly fee as established by city council in the annual budget ordinance.
- (1) Residents requesting multiple carts must sign an agreement allowing the city to add the cart fee(s) to their utility bill and also agree to participate in the curbside recycling program. All carts must be placed at the curb for collection. The fee will apply even if all the carts are not placed at the curb for collection. Any resident with multiple carts who fails to recycle, will be notified in writing about the importance of recycling and shall have their additional carts removed if they do not recycle.
 - (2) Residents utilizing multiple approved rollout carts will not be eligible for backyard garbage service.
 - (3) Residents utilizing multiple carts who are not paying for this service shall have their extra carts removed immediately.
 - (4) Anyone in possession of unauthorized multiple carts that are not accessible for retrieval, shall be notified in writing that they are in violation of the City Code of Ordinances. A deadline shall be set to surrender the cart(s). After that date, the cart fee will be added to their utility bill and remain in effect for each month hereafter until the cart(s) are surrendered to city personnel. The civil penalty for this infraction is \$50.00 per day.
 - (5) All cart provisions contained in this article will apply.
- (d) With the exception of where paid cart service is approved by the city, the householders of multifamily or single-family attached residences, shall arrange, at their expense for service utilizing bulk containers meeting the standards in [section 46-1](#) according to the following size requirements:

- (1) Minimum four-cubic-yard container where the complex contains seven to 12 living units;
- (2) Minimum six-cubic-yard container where the complex contains 13 to 18 living units;
- (3) Minimum eight-cubic-yard container where the complex contains 19 to 24 living units;
- (4) When the units exceed 24, additional bulk containers shall be installed and maintained in the same ratio as set forth in subsections (1), (2) and (3) of this subsection (d).
- (e) Except where paid rollout cart service is approved by the director of solid waste services, the property owners of all buildings or premises engaged in multifamily residential, or nonprofit, commercial, business and industrial activities shall arrange at their expense for service utilizing bulk containers for their respective places of business which meet the standards as stated in the definition of bulk containers in [section 46-1](#)

(Code 1987, § 10-56; Ord. No. 00-97, 12-14-2000; Ord. No. 06-41, § 3, 5-11-2006; Ord. No. 07-25, § 3, 4-12-2007; Ord. No. 11-20, §§ 3, 4, 3-10-2011)

Sec. 46-72. - Interference with containers.

It shall be unlawful for any person other than the owner to damage, displace or to otherwise interfere with carts or their contents except upon permission or at the request of the city.

(Code 1987, § 10-57; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 3, 4-12-2007; Ord. No. 11-20, §§ 3, 4, 3-10-2011)

Sec. 46-73. - Maintenance of public areas.

- (a) Every occupant of any commercial establishment or premises which maintains any paved or unpaved areas for the use of the public, either for parking or as access areas and incident to the carrying on of the principal business of any such commercial establishment or premises and which parking or access areas abut or lie within ten feet of any public street or other public way, shall keep and maintain such areas clean and free from garbage, solid waste or other materials liable to be blown, deposited or cast upon such street or other public way.
- (b) Suitable receptacles shall be provided in all parking or access areas pursuant to this section. Such receptacles shall be plainly marked and shall be constructed to prevent scattering of any garbage, solid waste or other materials deposited in them.

(Code 1987, § 10-58; Ord. No. 00-97, 12-14-2000; Ord. No. 07-25, § 3, 4-12-2007; Ord. No. 11-20, §§ 3, 4, 3-10-2011)

Sec. 46-74. - Evening and early morning use of refuse collection equipment prohibited.

- (a) It shall be unlawful for any person, firm, or corporation to cause a disturbance to any other person by operating any equipment for the emptying of dumpsters or collection of commercial refuse between the hours of 10:00 p.m. and 6:00 a.m. within the city limits, except in emergencies with the approval of the city manager or his designee.
- (b) Any person in violation of this section shall be guilty of a misdemeanor and upon conviction shall be fined \$100.00.
- (c) Any firm or corporation in violation of this section shall be liable for civil penalties of \$1,000.00 for the first occurrence and \$2,000.00 for any subsequent occurrence. Said penalties shall bear an additional penalty of \$100.00 for each day in excess of 14 calendar days from notice by certified mail or personal service that said penalties remain unpaid.

(Ord. No. 01-51, §§ 1—3, 10-11-2001; Ord. No. 07-25, § 3, 4-12-2007; Ord. No. 11-20, §§ 3, 4, 3-10-2011)

FOOTNOTE(S): ⁽³⁰⁾ **Editor's note**— Section 2 of Ord. No. 11-20, adopted March 10, 2011, amended the title of Art. II, Collection and Disposal, to read as herein set out; section 3 repealed Art. III, Containers; and section 4 amended and restated §§ 46-71—46-74, adding them to Art. II. ([Back](#))

11.0 Planning Element Sheets

11.1 Introduction

This section includes the planning element sheets for each of the following areas. The planning sheets follow in the order listed below and list the specific actions planned for each area during the planning period of July 2012 to June 2022

11.2 Source Reduction

11.3 Collection

11.4 Recycling and Reuse

11.5 Composting and Mulching

11.6 Incineration With and Without Energy Recovery

11.7 Transfer Outside Planning Area

11.8 Disposal

11.9 Education With Community and Schools

11.10 Management of Special Wastes

- A. Scrap Tires**
- B. White Goods**
- C. Electronics**
- D. Abandoned Manufactured Homes**
- E. Household Hazardous Waste**
- F. Fluorescent Lights**
- G. Used Oil Filters**

11.11 Illegal Dumping and Litter Management

11.12 Purchase of Products with Recycled Material Content

This Page Left Blank Intentionally

PLANNING ELEMENTS **NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN**

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Reduction
<input type="checkbox"/> Transfer outside geographic area
<input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Disaster Response
<input type="checkbox"/> Education with community & through schools
<input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Illegal Disposal/Litter
<input type="checkbox"/> Collection of Computer Equipment and Televisions
<input type="checkbox"/> Management of Abandoned Manufactured Homes |
| | <input type="checkbox"/> Disposal
<input type="checkbox"/> Purchasing Recycled Products
<input type="checkbox"/> Recycling and Reuse | <input type="checkbox"/> Collection
<input type="checkbox"/> Special Waste |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS			ESTIMATED TONS DIVERTED IN 10TH YEAR
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE		
Limit residents to one rollout cart; if resident recycles, allow 2nd & 3rd carts but change monthly fee to encourage waste reduction and continued recycling	Continue management of dumpsters in the Bicentennial Parking Lot and at Parking Deck and promote recycling services. Evaluate alternative fee collection procedures to eliminate unauthorized dumpster use by non-paying businesses.	Recycling of cardboard and mixed paper is encouraging; bottle and can recycling is marginal. On-going. Use without payment is organized and uncontrollable	1. Enhance web-site to be user friendly and more educational resources: A. Emphasize recycling; B. Encourage reuse by donating usable item; C. Promote backyard composting and grasscycling; D. Promote electronics recycling and reuse . 2. Evaluate educational and enforcement strategies to promote source reduction. 3. Increase target waste recovery rate to decrease waste disposal rate by 0.5 %/yr.	1. June 2014 2. January 2013 3. On-going	3. 7,565 Tons/Yr.		

This Page Left Blank Intentionally

PLANNING ELEMENTS

NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|---|---|---|---|--|
| <input type="checkbox"/> Reduction | <input type="checkbox"/> Disaster Response | <input type="checkbox"/> Illegal Disposal/Litter | <input type="checkbox"/> Disposal | <input checked="" type="checkbox"/> Collection |
| <input type="checkbox"/> Transfer outside geographic area | <input type="checkbox"/> Education with community & through schools | <input type="checkbox"/> Collection of Computer Equipment and Televisions | <input type="checkbox"/> Purchasing Recycled Products | <input type="checkbox"/> Special Waste |
| <input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Recycling and Reuse | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		ESTIMATED TONS DIVERTED IN 10TH YEAR
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	
Consultant reviewed solid waste & recycling program including yard waste collection. Recommended automated garbage collection and every other week recycling using 95 gal carts. The goal to increase operating efficiency and to reduce cost for service delivery has been achieved. Yard waste collection and composting changes were delayed until a future date.				1. Continue every other week recycling collection using 95 gallon rollout carts. 2. Use education and outreach to target recycling to increase participation and recovery rate from 398 to 500 lbs recyclables per HH served/yr. 3. Evaluate bulky waste collection protocol and enforcement procedures to identify options that will reduce waste left curbside and encourage customers to follow established pre-collection procedures.	On-going June 2022 Dec 2012	Increase recovery from 5,630 to 7,400 Tons/yr. To be determined
Selected Waste Pro USA as new Collection Contractor and transitioned to automated garbage and recycling collection beginning July 1, 2011.						

This Page Left Blank Intentionally

PLANNING ELEMENTS **NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN**

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|---|---|--|--|--|
| <input type="checkbox"/> Reduction
<input type="checkbox"/> Transfer outside geographic area
<input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Disaster Response
<input type="checkbox"/> Education with community & through schools
<input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Illegal Disposal/Litter
<input type="checkbox"/> Collection of Computer Equipment and Televisions
<input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Disposal
<input type="checkbox"/> Purchasing Recycled Products
<input type="checkbox"/> Recycling and Reuse | <input checked="" type="checkbox"/> Collection
<input type="checkbox"/> Special Waste |
|---|---|--|--|--|

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS	
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE
				4. Conduct a pilot scale evaluation of database and GIS driven wireless technology to improve collection efficiency by pre-locating yard waste for scheduled collection by City forces. Reduced mileage and optimization of daily crew assignments are the goals to reduce collection costs.	Dec 2012
				5. Review yard waste collection protocol and consider establishing volume limits collected to control contractor abuse and evaluate the possibility of every other week yard waste collection to improved efficiency and cost effectiveness	Dec 2012
					To be determined
					To be determined

This Page Left Blank Intentionally

PLANNING ELEMENTS

Check appropriate element

- ☐ Reduction
- ☐ Transfer outside geographic area
- ☐ Composting and Mulching

☐ Disaster Response

☐ Education with community & through schools

☐ Incineration with/without energy recovery

Illegal Disposal/Litter
Collection of Computer
Equipment and Televisions
Management of Abandoned
Manufactured Homes

<input type="checkbox"/>	Disposal	<input type="checkbox"/>	Collection
<input type="checkbox"/>	Purchasing Recycled Products	<input type="checkbox"/>	Special Waste
<input checked="" type="checkbox"/>	Recycling and Reuse		

PLANNING YEARS 2012 through 2022

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS			ESTIMATED TONS DIVERTED IN 10TH YEAR
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE		
		1. Continued pilot study for expanding recycling in downtown business district initiated in 2005 (Moved from Source Reduction)	1. Many businesses have closed making study inconclusive. On-going until conclusive results achieved. (Moved from Source Reduction)	1. Continued pilot study for expanding recycling in downtown business until conclusive results achieved allowing recommendation presented to Council.	1. June 2015	1. To be determined.	
		2. Continued pilot study for providing recycling at multi-family housing developments initiated in 2005 (Moved from Source Reduction)	2. Have recently enlisted minimum number of developments to draw conclusions. On-going until conclusive results achieved. (Moved from Source Reduction)	2. Continued pilot study for providing recycling at multi-family housing until conclusive results achieved allowing recommendation presented to Council.	2. June 2015	2. To be determined.	
					3. Target cardboard recycling program to add 1 dumpster per month to increase capture rate.	3. January 2013	3. Est. 1,963 Tons/Yr., a 560 Ton/Yr. increase.

This Page Left Blank Intentionally

PLANNING ELEMENTS NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|---|---|---|---|--|
| <input type="checkbox"/> Reduction | <input type="checkbox"/> Disaster Response | <input type="checkbox"/> Illegal Disposal/Litter | <input type="checkbox"/> Disposal | <input type="checkbox"/> Collection |
| <input type="checkbox"/> Transfer outside geographic area | <input type="checkbox"/> Education with community & through schools | <input type="checkbox"/> Collection of Computer Equipment and Televisions | <input type="checkbox"/> Purchasing Recycled Products | <input type="checkbox"/> Special Waste |
| <input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Management of Abandoned Manufactured Homes | <input checked="" type="checkbox"/> Recycling and Reuse | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS	
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE
				4. Evaluate Mixed Paper & Office Paper Recycling Programs to identify economic impact and benefits to promote and expand mixed paper collection to increase paper recovery.	4. January 2013
				5. Evaluate benefits and economic impact for expanding bottle & can recycling to business community upon completion of Pilot Program.	5. June 2014
				6. Evaluate alternatives available to add textile and carpet recycling collection. Consider logistical & financial challenges.	6. June 2019
					ESTIMATED TONS DIVERTED IN 10TH YEAR
					4. Est. 588 Tons/Yr., a 180 Tons/Yr. increase.
					5. To be determined.
					6. To be determined

This Page Left Blank Intentionally

PLANNING ELEMENTS **NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN**

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|--|---|--|--|---|
| <input type="checkbox"/> Reduction
<input type="checkbox"/> Transfer outside geographic area
<input checked="" type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Disaster Response
<input type="checkbox"/> Education with community & through schools
<input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Illegal Disposal/Litter
<input type="checkbox"/> Collection of Computer Equipment and Televisions
<input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Disposal
<input type="checkbox"/> Purchasing Recycled Products
<input type="checkbox"/> Recycling and Reuse | <input type="checkbox"/> Collection
<input type="checkbox"/> Special Waste |
|--|---|--|--|---|

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS			ESTIMATED TONS DIVERTED IN 10TH YEAR
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE		
		<p>1. Complete negotiations for contract with Hwy 49 C&D Landfill and Wallace Farms to grind limbs and compost yard waste.</p> <p>2. Consultant reviewed solid waste & recycling program including yard waste collection. Recommendations included recommended considering changes to yard waste collection methodology, yard waste processing, disposal, & recommend revisions current City ordinances</p>	<p>1. Owners unresponsive.</p> <p>2. Unable to move forward with recommended yard waste collection and processing changes until a future date. All emphasis placed on automated waste and recycling collection startup.</p>	<p>1. Continue negotiations for contracts with Hwy 49 C&D Landfill and Wallace Farms to grind limbs and compost yard waste.</p> <p>3. Promote backyard composting and grasscycling by providing guidelines and classes.</p>	<p>June 2013</p> <p>3. Jan 2013 Updates to web site; start classes by summer 2013.</p>		

This Page Left Blank Intentionally

PLANNING ELEMENTS

NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|---|---|---|---|--|
| <input type="checkbox"/> Reduction | <input type="checkbox"/> Disaster Response | <input type="checkbox"/> Illegal Disposal/Litter | <input type="checkbox"/> Disposal | <input type="checkbox"/> Collection |
| <input type="checkbox"/> Transfer outside geographic area | <input type="checkbox"/> Education with community & through schools | <input type="checkbox"/> Collection of Computer Equipment and Televisions | <input type="checkbox"/> Purchasing Recycled Products | <input type="checkbox"/> Special Waste |
| <input type="checkbox"/> Composting and Mulching | <input checked="" type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Recycling and Reuse | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	ESTIMATED TONS DIVERTED IN 10TH YEAR
Not Applicable: Not aware of any incineration operations with or without energy recovery located in City.						

This Page Left Blank Intentionally

PLANNING ELEMENTS

NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|--|---|---|---|--|
| <input type="checkbox"/> Reduction | <input type="checkbox"/> Disaster Response | <input type="checkbox"/> Illegal Disposal/Litter | <input type="checkbox"/> Disposal | <input type="checkbox"/> Collection |
| <input checked="" type="checkbox"/> Transfer outside geographic area | <input type="checkbox"/> Education with community & through schools | <input type="checkbox"/> Collection of Computer Equipment and Televisions | <input type="checkbox"/> Purchasing Recycled Products | <input type="checkbox"/> Special Waste |
| <input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Recycling and Reuse | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	ESTIMATED TONS DIVERTED IN 10TH YEAR
All transfer operations outside jurisdiction benefit City and will continue; No action necessary.						

This Page Left Blank Intentionally

PLANNING ELEMENTS

Check appropriate element

☐ Reduction

Transfer outside geographic area

Composting and
Mulching

9

10

☐

☐ Disaster Response

☐ Education with com
through schools☐ Incineration with/wit
recovery

rgy

5

11

Illegal Disposal/Litter

Collection of Computer Equipment and Televisi

Management of Abandoned Manufactured Homes



sal

Products

cling

cled

ion

I will

ste

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	ESTIMATED TONS DIVERTED IN 10TH YEAR
Franchise agreement with BFI-CMS Landfill guarantees disposal through 2033 at landfill or future transfer station. No action necessary at this time.						

This Page Left Blank Intentionally

PLANNING ELEMENTS **NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN**

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | |
|---|--|--|
| <input type="checkbox"/> Reduction
<input type="checkbox"/> Transfer outside geographic area
<input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Disaster Response
<input checked="" type="checkbox"/> Education with community & through schools
<input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Illegal Disposal/Litter
<input type="checkbox"/> Collection of Computer Equipment and Televisions
<input type="checkbox"/> Management of Abandoned Manufactured Homes |
| | <input type="checkbox"/> Disposal
<input type="checkbox"/> Purchasing Recycled Products
<input type="checkbox"/> Recycling and Reuse | <input type="checkbox"/> Collection
<input type="checkbox"/> Special Waste |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS	
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE
Enhance web-site with Educator's Blog, "Did you know..." section, etc				1. Monitor the effectiveness of each educational and communication strategy for effectiveness.	1. On-going.
Brochures were revised and distributed via mass mailing to residents incorporating bulky waste rule changes associated with new collection contract				2. Provide problem specific educational literature to raise awareness of problems that may arise.	2. On-going
Continue Civic Education program with 3rd grade classes in Cabarrus County Schools				3. Create Citizens Academy provide education and develop a corps of community advocates who can promote recycling, reuse and waste reduction throughout the community.	3. June 2013
Continue Concord 101 program to reach adults with environmental messages					
				ESTIMATED TONS DIVERTED IN 10TH YEAR	

This Page Left Blank Intentionally

PLANNING ELEMENTS **NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN**

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|---|--|--|--|---|
| <input type="checkbox"/> Reduction
<input type="checkbox"/> Transfer outside geographic area
<input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Disaster Response
<input checked="" type="checkbox"/> Education with community & through schools
<input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Illegal Disposal/Litter
<input type="checkbox"/> Collection of Computer Equipment and Televisions
<input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Disposal
<input type="checkbox"/> Purchasing Recycled Products
<input type="checkbox"/> Recycling and Reuse | <input type="checkbox"/> Collection
<input type="checkbox"/> Special Waste |
|---|--|--|--|---|

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		ESTIMATED TONS DIVERTED IN 10TH YEAR
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	
				4. Enhance web-site to target the following areas: a. Promote recycling and reuse as important lifestyle change; b. Promote donation of usable items as alternative to disposal; c. Promote backyard composting and grasscycling as conservation measures; d. Promote electronics recycling and add specific information on items accepted; e. Add instructions and "how to" resources on where and how to donate usable goods, backyard composting, grasscycling, and other appropriate topics; f. Make web-page more user friendly; g. Evaluate adding interactive educational games or activities;	4. June 2013	

This Page Left Blank Intentionally

INC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

- | Reduction | Disaster Response | Illegal Disposal/Litter | Disposal | Collection |
|---|---|---|---|---|
| <input type="checkbox"/> Transfer outside geographic area | <input type="checkbox"/> Education with community & through schools | <input type="checkbox"/> Collection of Computer Equipment and Televisions | <input type="checkbox"/> Purchasing Recycled Products | <input checked="" type="checkbox"/> Special Waste |
| <input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Recycling and Reuse | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		
KEY ACTIONS	KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	ESTIMATED TONS DIVERTED IN 10TH YEAR	
			1. Scrap Tires: Continue used tire collection; 2. White Goods: Continue collection program; 3. Electronics: Continue collection program and seek partners to sponsor collection events; 4. Manufactured Homes: Continue enforcement using minimum housing standards; 5. HHW: Continue to promote Cabarrus County HHW program; 6. Fluorescent Lights: Continue to recycle bulbs from city facilities and refer public to county HHW site for proper disposal;	1. Ongoing 2. Ongoing 3. Ongoing 4. Ongoing 5. Ongoing 6. Ongoing		

This Page Left Blank Intentionally

NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

- | Reduction | Disaster Response | Illegal Disposal/Litter | Disposal | Collection |
|----------------------------------|--|--|------------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Transfer outside geographic area | Education with community & through schools | Collection of Computer Equipment and Televisions | Purchasing Recycled Products | Special Waste |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Composting and Mulching | Incineration with/without energy recovery | Management of Abandoned Manufactured Homes | Recycling and Reuse | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	ESTIMATED TONS DIVERTED IN 10TH YEAR
				7. Used Oil Filters: Continue to recycle filters from city operations and refer public to county HHW site for proper disposal;	7. Ongoing	
				8. Litter and Illegal Dumping: Continue "Litter Sweep" and "Big Sweep" activities, and City litter collection activities;	8. Ongoing	

This Page Left Blank Intentionally

PLANNING ELEMENTS

Check appropriate element

- ☐ Reduction
- ☐ Transfer outside geographic area
- ☐ Composting and Mulching

☐ Disaster Response

☐ Education with community & through schools

☐ Incineration with/without energy recovery

☒ Illegal Disposal/Litter
Collection of Computer
Equipment and Televisions
☐ Management of Abandoned
Manufactured Homes

<input type="checkbox"/> Disposal	<input type="checkbox"/> Collection
<input type="checkbox"/> Purchasing Recycled Products	<input type="checkbox"/> Special Waste
<input type="checkbox"/> Recycling and Reuse	

PLANNING YEARS 2012 through 2022

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS		
KEY ACTIONS	KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE	ESTIMATED TONS DIVERTED IN 10TH YEAR	
				1. Continue "Litter Sweep" and "Big Sweep" promotions to encourage public to collect litter. 2. Continue City Litter Collection Activities as needed. 3. Continue collecting dead animal that weigh less than 100 pounds from residents. 4. Continue enforcement of illegal dumping. 5. Work closely with neighborhoods to encourage reporting of illegal dumping activities.		

This Page Left Blank Intentionally

PLANNING ELEMENTS NC LOCAL GOVERNMENT 10 YEAR SOLID WASTE MANAGEMENT PLAN

PLANNING YEARS 2012 through 2022

Check appropriate element

- | | | | | |
|---|---|---|--|--|
| <input type="checkbox"/> Reduction | <input type="checkbox"/> Disaster Response | <input type="checkbox"/> Illegal Disposal/Litter | <input type="checkbox"/> Disposal | <input type="checkbox"/> Collection |
| <input type="checkbox"/> Transfer outside geographic area | <input type="checkbox"/> Education with community & through schools | <input type="checkbox"/> Collection of Computer Equipment and Televisions | <input checked="" type="checkbox"/> Purchasing Recycled Products | <input type="checkbox"/> Special Waste |
| <input type="checkbox"/> Composting and Mulching | <input type="checkbox"/> Incineration with/without energy recovery | <input type="checkbox"/> Management of Abandoned Manufactured Homes | <input type="checkbox"/> Recycling and Reuse | |

COMPLETED ACTIONS		INCOMPLETE ACTIONS		NEW / REVISED ACTIONS	
KEY ACTIONS		KEY ACTIONS	WHY INCOMPLETE?	KEY ACTIONS	DATE DUE
<p>Adopted revision of Sustainable Procurement Policy promoting purchase and use of products with recycled content, waste reduction. Now most departments are using paper with 30 percent recycled content.</p> <p>Created permanent Sustainability Committee.</p>				<p>Work with Sustainability Committee to implement measures to reduce waste, increase reuse and recycling, and to promote use of products with recycled content.</p>	
					ESTIMATED TONS DIVERTED IN 10TH YEAR

This Page Left Blank Intentionally